

Fillmore
Soil and Water
Conservation District
Annual Report



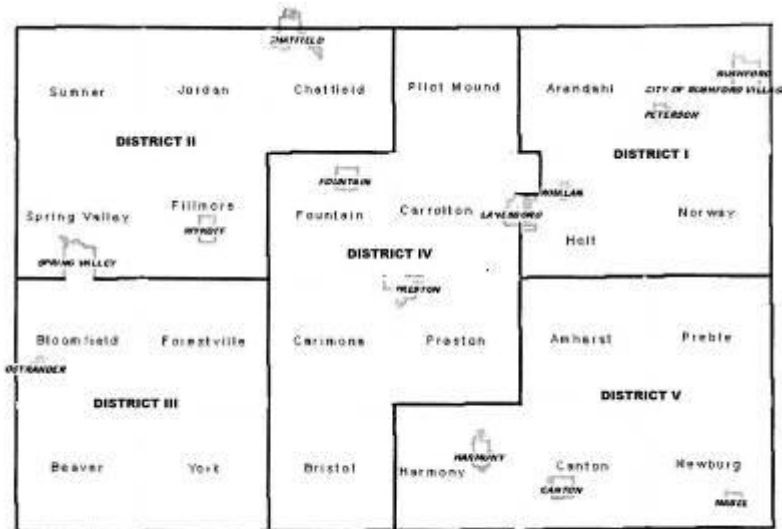
2018

Personnel Resources



Board of Supervisors

Front row: Bob Pickett, Supervisor; Kathy Tesmer, Treasurer; Travis Willford, Chair
Back row: Brian Hazel, Vice Chair; Tim Gossman, Secretary



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

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
Caleb Fischer	Water Management Coordinator
Aaren Mathison	Conservation Technician
Sara West	Nutrient Management Specialist
Willis Goll	Engineering Specialist

Natural Resources Conservation Service Staff

Jessica Bronson	District Conservationist
Keith Marie Feliciano-Cortes	Soil Conservationist
Vacant	Conservation Technician

COOPERATING AGENCIES

Basin Alliance for the Lower Mississippi in Minnesota (BALMM)
Bluff Country Hiking Club/Lost Creek Hiking Trail
Conservation Corps-Minnesota
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
Friends of the Root River
Grazing Lands Conservation Association (GLCA)
Hiawatha Valley Resource Conservation and Development (RC&D)
Land Stewardship Project (LSP)
Minnesota Association of Conservation District Employees (MACDE), SE Area 7
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, Wildlife Divisions
Minnesota Forestry Association (MFA)
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 (U of M): Extension, 4-H
Upper Iowa River Alliance
USDA Farm Service Agency (FSA)
USDA Natural Resources Conservation Service (NRCS)

INTRODUCTION

The Fillmore Soil and Water Conservation District Board of Supervisors hereby submit the Annual Report for the calendar year of January 1, 2018 through December 31, 2018.

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

Resource Conservation Technician, Conservation Technician, and Engineering Specialist

- Assist landowners with planning and design of practices, such as grassed waterways, terraces, grade stabilization structures, ponds, windbreaks, etc.
- Assist landowners with enrolling in programs that establish permanent vegetation including Reinvest in Minnesota (RIM) and Conservation Reserve Enhancement Program (CREP) and conducts annual status reviews of easements.
- Assist landowners with complying with the rules of the Wetland Conservation Act related to filling, excavating or draining of wetlands.

Engineering Technician

- Assists livestock producers with planning and design of feedlot runoff control practices, such as freshwater diversions, filter strips, picket fences, etc.
- Assists with Buffer Law implementation and compliance.

Nutrient Management Specialist

- Assists livestock producers with developing manure management plans to meet standards for 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.) through on-farm demonstration plots.

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 using EQIP or local or state funding.

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, as well as well sealing (50% up to \$1000 maximum) plus other practices on the state cost share docket.
- Local Capacity Grant Cost Share for cover crops and structural conservation practices using the same cost share rates as State Cost Share.
- 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 sealing and replacement, variable rate technology, and erosion control structures; loans are processed through local lenders.

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.
- 2017 Fillmore County Plat Books: available for sale for \$35.
- 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 under age 1 or a 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/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; 16 sold in 2018
- 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 and Administrator are coordinating the Root River One Watershed, One Plan. The Policy Committee is made up of representatives from 13 LGUs and includes a SWCD Supervisor representing the Fillmore SWCD.
- Investigations of soil erosion complaints made to the SWCD or Zoning Office determine the extent of the erosion and work with the landowner/operator on how to remediate it. Follow up on one complaint received in 2017 which was resolved.
- 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. No requests received in 2018.

USDA

- SWCD technical staff provides assistance for planning, designing, and implementing practices funded through federal Farm Bill programs such as EQIP, CSP and CRP.

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.
- Fillmore SWCD is a subcontractor with Olmsted SWCD for a Surface Water Assessment Grant to conduct water quality monitoring for Cycle 2 of Intensive Watershed Monitoring in 2018-2019.

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 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 0.8 FTE Nutrient Management Specialist position which serves five southeastern counties. This grant ended in 2018, and this portion of the position is now funded by the Root River Watershed Grant.
- 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. In October 2018, the position funding comes from a NRCS Conservation Collaboration Grant.

- 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 which ended in 2018.

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.
- The SWCD is a sub-recipient of grant funds for 0.2 FTE of the Nutrient Management Specialist to coordinate N-BMP outreach in 3 counties funded by MDA.

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 District 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; 2018 dues were paid.

Upper Iowa watershed

- SWCD staff assist Iowa DNR with water quality sampling at three Upper Iowa River sites in Minnesota from April to October.

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.
- Spring flow monitoring was begun in Engle Spring in Camp Creek watershed.

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 site is monitored annually.
- The remaining half of the funds helped purchase plants for the Fillmore County Office Building storm water basin rehabilitation completed in 2016. The site is maintained annually.



As of January 1, 2019, the SWCD is the recipient or sub-recipient of almost \$1.8 million in 12 Clean Water Fund grants active into 2019 with grant periods of 2-4 years ranging from 2016 to 2021. Of those funds, \$827,982 are used for Fillmore SWCD technical staff and grant administration over several years.

DISTRICT PROGRAMS, ACTIVITIES AND ACCOMPLISHMENTS

State Cost Share Program

In 2018, a total of \$16,494 in state cost share funds (FY16, FY17, FY18) were paid for:

- 4,050 feet of grassed waterways
- 2 grade stabilization structures
- 1 well sealing

The FY18/19 cost share grant allocation remains at \$24,289/year.

2018 Outstanding Conservationists



Each year the Fillmore Soil and Water Conservation District (SWCD) selects an outstanding conservationist who exemplifies the meaning of conservation. In 2018, Gerald and DiAnne Peter of Mabel were chosen. They were honored at a luncheon at the Minnesota Association of Soil and Water Conservation District's (MASWCD) Convention held in December in Bloomington where Outstanding Conservationists from across the state were recognized.

The Peters farm 370 acres in a corn-soybean-oats-hay rotation on both owned and rented land in Preble Township. All their land is in contour strips and no-tilled, except where the cows are wintered. They started using cover crops with EQIP and have continued their use on all acres following corn and soybeans. They have found that the use of cover crops is the best conservation practice for erosion control and nutrient retention.

The farm has many conservation practices that have been added and maintained over the years. Their farm has four ponds which were installed starting in the early 1970s. Two of the ponds have had sediment removed to restore their original capacity. Waterways are maintained and added as needed. They have seven gully control structures at the head of draws where cropland adjoins steeper woods or pasture land. These structures are small dikes with a pipe or spillway, which were installed with help from the SWCD in the 1980s and are still functioning well today. They also maintain a 750-foot farmstead shelterbelt, adding trees as needed, and a hedge has been planted along one field to reduce erosion.

Gerald and DiAnne have 85 Black and Red Angus cow/calf pairs. All their cattle are grass fed and the calves sold after weaning in November. Cows are wintered on corn stalks and spend no time in a feedlot. Their 125-acre pasture is rotationally grazed and divided into twelve paddocks which the cows are moved through weekly.

Their 120 acres of woodland are fenced to exclude cattle, which enhances the wildlife. They also have a seven acre field that is maintained specifically for wildlife habitat, which they have inter-seeded with species beneficial to wildlife. This area is used by both family and guests that include young hunters and participants in the Wounded Warrior hunting program.

Gerald is a former Fillmore SWCD supervisor, Preble Township Board member and Mabel Cooperative Telephone Board member. He is currently a member of the Fillmore County Cattlemen, and the Mabel Legion, having served six years in the Army Reserves, and is a member of the Land Stewardship Project. The Peters have been participants in the SE MN Volunteer Nitrate Monitoring Program since it began in 2008.

Gerald's reputation with his neighbors speaks highly of the respect they have for his opinion on pest scouting and the prudent use of pesticides and herbicides. The Peters are known for their stewardship of the land and for giving back to the community.

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.

2018 Tree Program

The District sells a variety of bare root deciduous trees and shrubs and bare root and potted conifers. 2018 sales included 11,715 bare root stock and 911 potted stock sold to 215 individuals, municipalities, and organizations in and around Fillmore County.



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 landscape found in most of the county, so 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. Four windbreaks were installed in 2018 totaling 4,120 feet utilizing \$1,530 from 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 technicians. There was one project for 10 acres that used the summer construction set aside funds in 2018.

Wetland Conservation Act (WCA)

There were 48 landowner contacts in 2018. Three WCA applications for boundary type (2) and no loss (1) were approved. Three potential violations were investigated. Fillmore SWCD began contracting with Wabasha SWCD in 2018 for shared WCA services. Monthly meetings were held with the Wabasha SWCD Ecological Technician either in person or by phone, and also with TEP members when needed. A

meeting to review county road and bridge projects was held in December with DNR and County Highway Department staff.

Feedlot Water Quality Management

One project was funded utilizing 319 grant funds from the SE MN Water Resources Board. Funding is available for projects into 2020.

Nutrient Management

The Nutrient Management Specialist works in five counties, and 0.8 FTE was funded by a FY2015 Clean Water Fund grant awarded to the SE SWCD Technical Support Joint Powers Board until the end of July 2018. That portion of the position is now funded by the Root River 1W1P Watershed-Based Grant. A small fee is charged per acre for the new or updated nutrient management plans, and the funds are used for other program-related activities. The position was vacant for the first three months of 2018 with Sara West filling the position in April.

The new Nutrient Management Specialist attended the U of M/MPCA Nutrient Management Training in Hutchinson, MN on April 10th and 11th. She sent out 291 letters to producers in three counties introducing herself and providing her contact information to set up appointments to do plan updates. (Olmsted County didn't provide a list, and Winona County's feedlot officer position was vacant. She will be following up with those counties.) Letters were sent to 12 producers in the Root River Field to Stream Partnership (FSP) watersheds who needed updated manure management plans. She met with CHS in Grand Meadow on contract details to work with Paul Trcka on consulting and training on manure management plans for the FSP farmers. Regular follow up meetings are planned with these farmers and CHS to facilitate implementation of the plans to maximize the efficiency of nutrient use. She assisted the Fillmore County Feedlot Officer with reviewing the EAW for the swine facility proposed by Catalpa LLC in Newburg Township. This included going through the manure management plan to ensure that the numbers were correct, running multiple manure scenarios for the operation, and checking the area for additional sensitive features (sinkholes) that were not shown on the maps. By year's end, 21 Manure Management Plans covering 13,286 acres were completed. This includes 5 plans completed for five farmers in the Field to Stream Partnership watersheds.

Funding for the other 0.2 FTE for this position comes from MDA through a Joint Powers Agreement between the SE MN Water Resources Board and MDA for Nitrogen BMP Outreach to set up on-farm N comparison plots. Six plots were set up and monitored in 2018 plus four Advanced Plots monitored by U of M Extension. Soil nitrogen samples, plant population counts, pre-side-dress nitrogen testing, basal stalk nitrate samples, whole plant samples and SPAD readings along with yields provide the data from the plots.

Soil Health

January –September 2018 Activities: The Area Soil Health Technician worked with 46 clients in five counties on 2018 EQIP applications for grazing and cover crops plus several clients for 2019 EQIP and RCPP-EQIP for grazing plans. Additional clients had checks done for existing EQIP contracts for grazing and cover crops in multiple counties. He assisted with local cover crop programs in five counties (Freeborn, Mower, Wabasha, Winona



and Fillmore) and assisted with soil health meetings and a field day in Freeborn County. He assisted NRCS with the cover crop standard, tech note and seeding tool and with the pasture NRI. He and the Soil Scientist from the Area Office distributed soil temperature dataloggers in cover crop fields in Fillmore County and reviewed the data with the cooperators. He participates in the monthly State Soil Health teleconferences and GLCA meetings and teleconferences. The Acting State Grazing Specialist toured Area 6 projects with him in May. He provided training to NRCS staff on cover crops at the NEDS course in June and on the setup and operation of the rainfall simulator at the Area Office in July. He also assists with contracts for CSP (grazing) and CRP grassland. He serves on the Area 6 Training Committee which is setting procedures for achieving Job Approval Authority for staff in the Area. He continued to provide assistance on the LCCMR soil health project in southeast Minnesota by attending the farmer meetings in St. Charles and Owatonna, checking cover crop seedings for six sites and conducting Haney tests on the demonstration plots. He attended and helped with planning and presenting information at several events: cover crop meetings in Faribault (1/5/18) and Adams (2/23/18); Cow/Calf Days in Oronoco, Caledonia, Harmony and Rochester; Midwest Forage Association in St. Charles (1/30/18); Soil Health Tour March 12-16; Ray Archuleta presentation in Lewiston; Grazing Specialist meeting in St. Cloud (5/1/18); Locally Led Workshop (7/16/18); Linneaus Symposium at Gustavus Adolphus College in St. Peter (7/12/18). He demonstrated the rainfall simulator at the Byron Area Farmers Field Day in May and assisted with the Area Envirothon and Farm Safety Day Camp in May. He provided an article for the Fillmore SWCD annual newspaper insert and setup a "Soil Your Undies" demonstration used at the Fillmore County Fair. He coordinated the publication and sponsorship of the Grazing Gazette published every other month and distributed by Extension to over 1000 recipients. He completed the NRCS Conservation Planning Course in August along with all AgLearn prerequisites and has completed plans for certification. He was also the instructor for the grazing course for over 50 students who attended the planning course. He conducted additional trainings around the state in March on soil health (five locations), in June on cover crops (five locations), and in August on cover crops (two locations) with expenses paid from other grants.

In October, a NRCS Conservation Collaboration Grant began funding 85% of the position for support to NRCS with soil health activities. The remaining 15% of the position is funded from the Root River Watershed-Based Grant for soil health work in the watershed, and also from funds from the SE MN Technical Support JPB for soil health assistance on local and state programs with each of the 11 southeast Minnesota SWCDs that are members of the JPB. In Fillmore County, two cover crop contracts for 52 acres are in their second year. Assistance was provided to Wabasha SWCD for 335 acres in cover crop contracts. From October to December, NRCS was assisted with 32 field visits and one contract status review, and plans were prepared for EQIP applications. A cover crop workshop was held in Wilson, MN, on December 15th with about 70 farmers in attendance.

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 Policy Committee gave final approval of the plan on December 19, 2016, after approval by the MN Board of Water and Soil Resources. All 13 LGUs represented on the Policy Committee approved the Joint Powers Agreement for governance during implementation of the plan. A BWSR Watershed-based Grant (\$851,301) was received in May 2018, and activities began using the work plan and budget developed by the Planning Work Group after meeting with the Advisory Committee which was then approved by the Policy Committee. The Winona SWCD is the fiscal agent for the grant, and the Fillmore SWCD is the day-to-day contact.

Fillmore SWCD staff completed one structure utilizing EQIP funds in South Fork Root River watershed, and designs for grade stabilization structures are in progress with five more landowners in that watershed. Other practices implemented in the priority watersheds in the implementation Plan include terraces in Mill Creek (Olmsted County) and a structure in the South Fork Root River (Houston County). An application was approved for assistance from the Regional Sustainable Development Partnership with completing a civic engagement plan. A contract was approved by the Winona SWCD with the SE MN Water Resources Board for GIS assistance to complete PTMApp analysis in the Riceford Creek watershed upstream of Mabel for identifying and prioritizing water storage practice locations.

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 23 grab samples (plus 2 duplicates) per year at each site during runoff and base flow conditions for a total of about 125 samples per year. Samples are analyzed for Nitrate + Nitrite-Total Nitrogen, Total Phosphorus, Dissolved Orthophosphate Phosphorus and Total Suspended Solids. Staff also calculated annual loads using the FLUX32 model and managed photo files. In field measurements are now recorded using the Canvas program on a mobile device.

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 has been 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 fields with edge-of-field sites. Grab samples are also collected at the in-stream sites. In-field observations are recorded at all sites. Equipment and site maintenance are major tasks for the water monitoring staff. 2018 marked the ninth year for collecting water quality data. As BMPs are implemented, changes in water quality are being monitored.

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. Spring monitoring equipment was installed at Engle Spring in neighboring Camp Creek in cooperation with DNR and MPCA. Staff assisted with contacting landowners, setting up the equipment and recording data.

An amendment to the agreement with MDA continues funding for the monitoring project to June 30, 2019. The funds continue to be used to administer the subcontract with Mower SWCD and 0.6 FTE in the Fillmore SWCD to collect samples, maintain equipment and manage the data.

Special EQIP funding available through the Mississippi River Basin Initiative (MRBI) from USDA-NRCS was extended for the Lower South Fork of the Root (which includes Bridge Creek) for \$350,000.

An ag waste application is in process with the Caledonia NRCS Field Office for a feedlot in Bridge Creek in Houston County. State funds will be used to provide 90% cost share to the feedlot operator.

An application for \$804,395 in a Clean Water Fund Grant was approved in December 2015. A Targeted Watershed Grant application for \$493,233 was approved by BWSR in March 2016 for additional BMP implementation in the Headwaters plus rehabilitation of the E-3 flood control structure in Crystal Creek.

In 2018, three grassed waterways were installed, two in Bridge Creek (#22BC 395', pd 8//18; #23BC 700', pd 6/14/18) and one in Crystal Creek (CC18-01 800', pd 7/12/18). One grassed waterway measuring 2375' was installed in Crystal Creek using EQIP funds. One milkhouse waste system was completed in Bridge Creek (Contract #21 BC completed and paid on 5/10/18). One contract for cover crops was paid in 2018 for 26.5 acres. One grade stabilization structure installed in Bridge Creek (#17BC pd 8/9/18). One contract was cancelled; the project is being fully funded with EQIP. One critical area planting was completed (#25BC paid 12/13/18). Nutrient management plans were completed for five farmers. In the Headwaters, one grassed waterway completed (1545') using state funds, two waterways were completed with EQIP funding (2,754'), and one waterway was completed by a landowner without financial assistance (643'). One waterway contract for 2018 was held over into 2019 for construction and is not yet complete (3,561').

Clean Water Fund Soil Erosion Grant

This grant ended in April 2018. This grant funded approximately 0.25 FTE to assist landowners with implementing practices in their plans. Activities completed in 2018 related to conservation planning included assisting nine landowners with different conservation needs - waterway needs, maintenance/clean out, conservation planning for the future, beginning farmer inquiry, MDA corporate farm report questions, permitting with DNR and WCA to clean up and do maintenance along protected waters. The planner attended trainings for Hydrology and Soil Health and worked with DNR Hydrologist on streambank erosion concern and permitting.

Rain Gardens

Maintenance is still needed on the two water retention basins at the Fillmore County Office Building in Preston which were renovated in November 2016 as rain gardens to provide more function and beauty to the neighborhood and less maintenance for County staff. Due to the very wet conditions throughout 2018, little work could be completed. The Harmony Gardens rain garden is also in need of maintenance. Initial discussions with city staff are underway to decide the best plan of action with the site changes that have occurred. The 2019 Prairie Walk is tentatively planned for this location.

DNR Healthy Forests for Healthy Water Grant

Clean Water Fund Grants from the DNR (\$78,000) and BWSR (\$50,000) provided 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: Riceford Creek and Rush-Pine Creek watersheds. The DNR grant ended in May 2017. BWSR grant funds were fully expended in September 2018. In 2018, six projects were completed and paid: 40.5 acres of invasive species management (3 contracts), 7025 feet of forest road improvement (1), tree planting-275 seedlings (1), 19.2 acres crop tree release (1) and a Forest Stewardship Plan for 110 acres.

Farm Bill Assistance

FBA funding ended in 2018 due to decreased workload from NRCS. Staff completed training for the CREP program in January 2018.

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 2018, 19 loan applications were approved for \$673,103; 13 were completed for \$591,503.25. Those included three manure equipment (\$297,357), two completed (\$294,856.50); two feedlot fixes (\$15,248), one completed (\$13,747.70); ten septic systems (\$129,496), six completed (\$61,896.23); one no till equipment (\$64,000), one completed; three well replacements (\$55,583), two completed (\$45,482.82); one Variable Rate Technology (\$111,420), one completed

Buffer Grant

Stream buffers are an effective practice for protecting water quality, especially when combined with other upland practices. The 2015/2016 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 assist landowners with compliance with riparian buffer or alternative practice requirements. The funds were used by Fillmore SWCD to provide technical assistance to landowners to identify where buffers may be needed along public waters in Fillmore County and to assist with requests for installing the buffers. Financial assistance information was also provided to landowners for those who wish to enroll eligible acres into the Conservation Reserve Program (CRP) or other programs. BWSR cost share funds were available, but no requests were received for funding so funding was returned to BWSR in 2018. Advice regarding appropriate seeding mixes, maintenance and other technical assistance is being provided as needed.

In 2018, work continued to contact numerous landowners (phone, office, email, field visits). Reminder letters were sent with a map before spring. Assistance was provided when requested to stake out numerous buffers and for alternative practices. Staff verified compliance of buffers and sent out follow up letters. Staff updated the in-house database and BuffCAT as needed with notes and compliance status. A news article was published in the annual SWCD newspaper insert. There was correspondence with DNR Fisheries on specific parcels and follow up on concerns from citizens. The notification process was completed for incorporating 'Other Waters' into the County Water Plan. Non-compliant parcels were identified after the compliance deadline which were sent to the county for enforcement (2 parcels). Work continues with one non-compliant landowner to come into compliance. Staff worked with the DNR Area Hydrologist on changes to buffer map. Options for a compliance monitoring plan were developed and brought to the SWCD Board for adoption for monitoring to begin in 2019.

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 applied for funds to promote the program and held an informational meeting with nine producers in January. Four completed applications at the meeting and two others took applications to complete. The program was promoted in the annual SWCD newspaper insert. A total of 26 landowner contacts were made regarding the program.

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. The lab also offers nitrate screening at no charge to the client using MDA nitrate testing equipment. These are not certified lab results. Three staff are trained to analyze samples. An internal audit and external audit were completed for the lab in 2018. All findings from the external audit were addressed and approved and entered into ELDO along with updates to manuals and forms. There were 105 private well samples analyzed for bacteria in 2018, of which 44 had Total Coliform bacteria present, and ten of those had *E. coli* present.

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. Brady Ristau from Fillmore Central High School is the 2018 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. There were no college applicants in 2018.

Spring Wildflower Walk: A wildflower walk was held at Forestville State Park on May 31st. Seven people attended to learn to identify spring flowers. A naturalist from the park led the walk.

Forestry Field Day: Summer interns hired in 2010-2018 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 2018 held July 25th at Magellens Park in Rushford. The theme was “Why Trees? Why Prairie? Why Goats?”. The presenters took the group along the walking trail from the south facing bluff prairie to the north facing hardwood forest to show how soils, aspect and slope affect the types of vegetation. The MN Forestry Association, the American Tree Farm Association and Highpoint Realty were co-sponsors.

Prairie Walk: The annual Prairie Walk was held on October 10th at the Tim and Susan Gossman farm west of Chatfield. Twenty people were in attendance despite a cold, windy and rainy day. The main topic was how to collect native seed along with information about identifying native plants and programs to assist landowners with establishing native plantings.

6th Grade Field Day: The 2018 6th Grade Field Day was held at Forestville State Park on September 19th. About 165 students attended from three schools.

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. The Nature Conservancy provided the other half of the funding for the grass plugs. The landowners have also been taking pictures of the site on a regular 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 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, 2016 and 2017 and will do so periodically for further documentation of any movement of the hillside. No measurements were taken in 2018.

Farm Safety Day Camp: One staff person assisted with Extension's Farm Safety Day Camp in May which is attended by about 600 fifth-grade students from two counties.

Area and State Envirothon: A staff member from the SWCD assisted with planning and staffing the 2018 Area Envirothon, which was held in May.

Fillmore County Fair Display: The SWCD booth at the 2018 Fillmore County Fair in July featured a stream table to demonstrate how streams behave under various conditions, and it was a great attraction for the kids. Other kids' activities were offered about soil erosion and groundwater, all of which were presented by the Conservation Corps apprentice. The SWCD purchased air time on the local radio station during the fair to promote current SWCD programs.

Nitrate Clinics:

Three nitrate clinics were held in 2018 at Preston Equipment, the National Trout Center, and at the Simple Living Farmers' Market in Mabel. Samples are analyzed using MDA equipment.

“Conservation Chronicles” Newsletter: On February 5, 2018, the Conservation Chronicles newsletter was published in the *Bluff Country Reader*, a free newspaper that goes to over 16,000 residences in Fillmore County and surrounding counties. 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: Several activities that were done in 2017 in connection with SWCD's 75th anniversary were continued in 2018. Activities in 2018 included:

- Education Committee developed and implemented annual education plan.
- Purchased supplies to complete a stream table built by Kingsland Vo-Ag classes.
- Events: National Trout Center Water Quality Day in February (stream table and nitrate testing), Wildflower Walk in May (seven participants), Dairy Night at the Farm and Cattlemen's Steak Fry (stream table and display), County Fair in July (kids' activities for three days), 6th Grade Conservation Day Sept. 19 attended by 165 students, Kingsland Fish and Waters Class in October (3 presentations), Prairie Walk October 10 (20 participants), Lanesboro Vo-Ag classes in December. Outreach to Vo-Ag teachers to encourage Envirothon participation; assisted with the Area Envirothon.
- Newspaper and radio ads for Wildflower Walk, Beef, Dairy and Pork Months, Fair activities, Forestry Field Day, Prairie Walk, World Soil Day, and Noxious Weed Workshops. Over 800 postcards mailed for the Forestry Field Day.

Conservation Corps Minnesota Apprenticeship Program: A Conservation Corps apprentice was placed with the SWCD in 2018. He helped with water quality monitoring activities, the forestry field day, data management, the Fillmore County Integrated Roadside Management project, and other tasks.

Lost Creek Hiking Trail Forestry Education: No activities in 2018.

Fillmore County Integrated Roadside Management Project: In 2018, the Fillmore County Highway Department and Fillmore Soil and Water Conservation District (SWCD) worked together to develop a no spray policy to reduce the costs of noxious weed spraying in the roadside ditches of Fillmore County highways and to offer landowners/renters who own land along county highways an alternative to spraying. For those who complete a “No Spray” request form and submit it to the Fillmore County Highway Department, the County will not spray that section of county road, and the landowners/renters agree to control and/or remove the noxious weeds and brush within the “No Spray Zone” signs. This is an annual contract that needs to be renewed each year. In 2019, the option to sign a longer term agreement will be in place. The Fillmore County Highway Department has signs available for purchase at their office. It is the property owner's responsibility to install and maintain the signs at the proper location.

Another aspect of the project is to evaluate the effectiveness of alternative control methods for wild parsnip in small areas. Demonstration plots were set up north of Preston along County Road 17 in November with assistance from Extension staff. Two alternative control methods are being tested: interseeding of native plants to outcompete wild parsnip and use of corn gluten to prohibit germination of wild parsnip seed. A frost seeding was completed in November with the seed mix donated by Prairie Moon Nursery. Corn gluten application will be done in spring 2019.

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 40 years, one for 27 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. Another allocation was made for 2018-2019. FY16 funds were used for education and outreach expenses in 2018 (see above). FY17 funds were used for structural practice implementation (two grade stabilization structures and one 2110' grassed waterway) and technical/ engineering assistance for implementation of those and other practices. A policy was developed for use of FY18 funds for three-year cover crop contracts; two contracts were approved and paid for 52 acres in their second year of implementation. Funds remain for additional practices. FY18 funds were also used for education/outreach expenses (see above) as well as for technical/engineering assistance. A portion of the FY19 funds were used for technical/engineering assistance for practice implementation.

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.