

Fillmore Soil and Water Conservation District Annual Report



Gary Erickson Photo

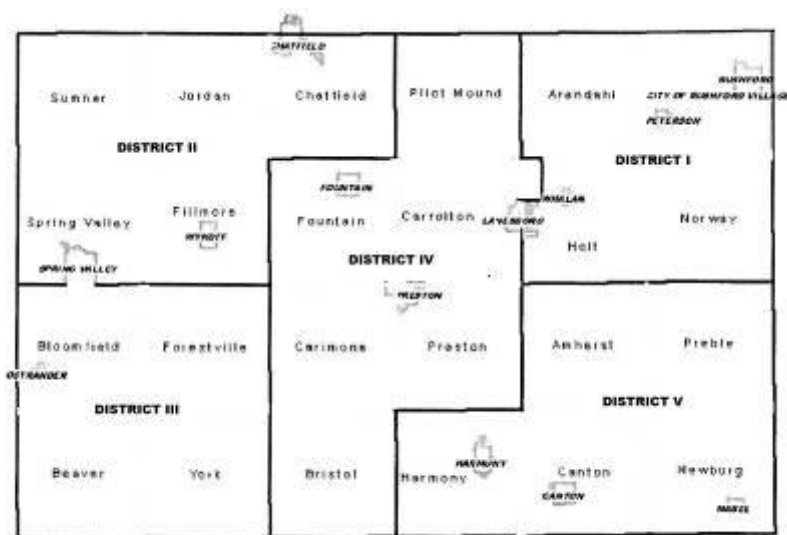
2014

Personnel Resources



Board of Supervisors

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



Board Meetings are held the Thursday after the second Monday of each month at 4:30 p.m. at the SWCD office. (This is changed to the third Thursday in 2015.)

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, Carleton (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, 2014 through December 31, 2014.

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 Resource Conservation Technicians

- 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 and that eligibility for the farm program is maintained

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)

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 up to a maximum of \$5,000 for grassed waterways, terraces, grade stabilization structures, including well sealing (50% up to \$1000 maximum) plus other practices on the state cost share docket.
- Clean Water Fund Grant Feedlot projects: provides 75% cost share for runoff control practices and manure storage for feedlots in riparian areas or within 300 feet of a sensitive feature.
- 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
- 2014 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
- 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.
 - One staff is a licensed inspector to assist the Zoning Office with the inspection of newly installed septic systems.
 - The Resource Conservation Technicians 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.
 - The Conservation Technician is partially funded with a BWSR Farm Bill Assistance grant to assist landowners with completing CRP Conservation Plans.
- MN Pollution Control Agency
 - Root River watershed
The SWCD is the lead for the Root River WRAPS table and the MPCA Watershed Pollutant Load Monitoring Network.
 - SE MN Nitrogen WRAP Planning: The SWCD monitors three spring locations at the Lanesboro Fish Hatchery and manages a subcontract with WSU for the lysimeter network.
- MN Department of Agriculture
 - The SWCD has two Joint Powers Agreements for the MDA Field to Stream Partnership in which subcontracts and payments are administered by the SWCD, and staff assists with edge-of-field and in-stream monitoring, data management and watershed assessments, and technical assistance to implement practices identified as a result of farm walkovers to start in 2015.
- 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.
- 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.
- 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 Domestic Well 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
- Upper Iowa watershed
 - SWCD staff assist with water quality sampling at three sites from April to October
 - Two MPCA IWM sites will be added for monitoring in 2015-2016.
- 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.
- The Nature Conservancy
 - Grant funds were passed through the SWCD to three cooperatives for seeding cover crops in the Rush Pine Watershed which was coordinated by the newly-formed Farmer Led Council.



The SWCD is the recipient of \$2,825,300 in 19 Clean Water Fund grants active in 2014 and 2015 with grant periods of 2-4 years ranging from 2011 to 2018. Of those funds, \$1,255,259 is used for staffing and administration, and the remainder is used for implementation of soil and water conservation practices.

DISTRICT PROGRAMS, ACTIVITIES AND ACCOMPLISHMENTS

State Cost Share Program

In 2014, a total of \$28,410 in state cost share funds (FY12, 13 & 14) were paid out to install:

- 5 grassed waterways (5,230 feet)
- 3 terraces (3,332 feet)
- 1 water and sediment control basin
- 3 farmstead windbreaks
- 4 wells sealed

The SWCD's state cost share allocation was reduced from \$43,432 in FY09 to \$31,576 in FY13. The FY14/15 allocation is \$24,289/year.



Seeded terraces

2014 Outstanding Conservationists

The SWCD named John and Deb Bruihler of Rushford as the 2014 Fillmore County Outstanding Conservationists. The Bruihlers were recognized at a Dec. 8 luncheon at MASWCD's 78th annual convention in Bloomington. The awards program recognizes farm families, individuals, conservation organizations, and other groups for their accomplishments in implementing conservation practices and improving Minnesota's natural resources.

The Bruihlers farm about 1500 acres in Minnesota and Iowa and no-till all their corn and soybean acres. Some fields have not been tilled for more than 20 years. With over 30 years of no-till experience, they share their knowledge at numerous conferences and field days including the National No-Till Conference. To further reduce erosion, they have been planting cover crops the past several years experimenting with various mixes, seeding dates and methods. John has led the effort to encourage more use of cover crops as Chair of the Rush-Pine Watershed Farmer Led Council. Other conservation practices include waterways, buffers, sidedressing N, and planting trees for wildlife. The Bruihlers are innovators helping to advance conservation in their watershed.



Deb Bruihler with Paula Mohr
of *The Farmer* magazine

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.

2014 Tree Program

The District sells a variety of bare root trees and shrubs and bare root and potted conifers. 2014 sales included 10,650 bare root stock and 1,240 potted stock sold to over 200 individuals, municipalities, and organizations in and around Fillmore County. For Earth Day, 50 free Common Purple Lilac seedlings were given to those attending the event in Lanesboro.



SWCD staff assisting a customer with their tree order.

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 will continue 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. Two windbreaks were installed in 2014 utilizing the SWCD cost share.

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. Four projects utilized \$4,042 of these funds in 2014 to seed down temporary cover allowing summer construction of terraces and grassed waterways.

Feedlot Water Quality Management

Three feedlot projects were completed in 2014 for a total cost of \$339,857 from FY12 and FY13 Clean Water Funds. Four projects were funded with \$57,702.00 in 319 grants from the SE MN Water Resources Board and one project used \$5,000 from county cost share funds. A FY14 Clean Water Fund Grant for one feedlot project was approved for \$170,083 from the FY13 application. That project is expected to be completed in 2015. None of the projects submitted in the FY15 funding application were funded. Staff time to develop the applications is partially covered by Feedlot Base Grant funding from the county.

Nutrient Management

The Nutrient Management Specialist works in five counties and is funded by a Clean Water Fund grant awarded to the SE SWCD Technical Support Joint Powers Board. A total of 168 NMP contacts and over 120 plans on about 66,465 acres have been completed. Fees charged for the plans help to meet match requirements for the Clean Water Fund grant. The FY12 grant has been extended one year to expend remaining funds. The person in the position since 2007 resigned in August, and a replacement

was hired in October. Funding for half the position is now coming through a Joint Powers Agreement with MDA for N BMP outreach to set up on-farm N comparison plots. A FY15 Clean Water Fund grant was approved by BWSR for the other half of the position to continue nutrient management planning activities.

Nutrient Management Articles & Training

- June 2014 SWCD online newsletter article “Lysimeter Network” and “Watson Creek and Rush Pine watershed project”
- 2014 SWCD Newspaper Insert article “Nutrient Crediting for 2014 Crop Season”
- Presentation on Nutrient and Manure Management Plans at a Land Stewardship Meeting
- Provided NMP training for Land Stewardship hire David Rosemann to help update MMP plans
- Provided NMP training for 3 farmers who will be doing their MMP plans on their own now
- Provided MMP training for Bridget Evers Wabasha Co Feedlot Technician
- Met with Benson Farm Service regarding their Fertilizer spreadsheet; added in a section for Manure Applications. The spreadsheet will be used customers that have EQIP NMP contracts.
- Met with Jerrod Eide, Pioneer Seeds rep from Rushford, regarding precision planting and services for his customers and what people are doing in the Rushford area.

Workshops and Field days attended

- Research Update for Ag Professionals-U of M Extension
- Winter Crops Days-U of M Extension
- MN Crop Nutrient Management Conference-MN Dep of Ag – Manure Plot Poster was on display at this conference with the full 2 years of results
- Conservation Tillage Conference-U of M Extension
- NRCS/SWCD Tech Field Day @ CPS (precision ag) and Brian Hazel’s Dairy (barn tour)
- Forages for “U” Workshop-U of M Extension
- Watershed Academy Webcast seminar “Using cover crops improving water quality”
- NRCS cover crop field day @ Simons’
- Non-point source Nitrogen Loading, sources pathways and BMP cost effectiveness for MN surface waters-webinar

Watson Creek Watershed & Rush Pine BSNT Farmer Groups

- Spring 2014 soil Nitrate tests were taken and all the results have been mailed out to the participating producers. Follow up phone calls have also been made to gather field management information.
- Southeastern MN Soil Water Monitoring (Lysimeter) Network continues.
 - All producers are still participating in this project for the fourth year of monitoring.
 - Kevin Kuehner, MDA, and Toby Dogwiler, Winona State, finalized a summary letter for the participating producers about how to read and interpret the lysimeter results.
 - Field management information was gathered for these fields for 2014.
- Three students from Kingsland FFA assisted MDA and SWCD staff with the basal stalk nitrate sample collection. Letters were sent to the producers in December with the results from the testing. Winter meetings are being planned to go over the results.

Nitrogen Fertilizer Management Planning Advisory Committee (NFMP)

- Proposed rule regarding no fall application of Nitrogen was released June 4, 2014 as a result of the updated NFMP plan which is still in draft form.

NMP Software

- Real Time Ag NMP/MMP software net meeting and teleconference; the software can help meet MN requirements.
- MDA software is still in development for use with the Field to Stream Partnership sites.

The new Nutrient Management Specialist began work October 27th and has met with NRCS and MDA staff for training and orientation. He attended the Iowa State Integrated Crop Conference and the Minnesota Crop Production Short Course in December. He has sent out letters to the producers who have done plans and is meeting with several to gather the information to update plans. Updates have been completed for one producer and several others were in progress as of the end of the year. He has also met with MDA staff to discuss the SE MN Nitrogen BMP Outreach Program. He will work with producers to do on-farm demonstrations to compare N management practices.

Soil Health

The Grazing Management grant, which paid for staff time to provide free assistance to livestock producers in the Root River and Whitewater River watersheds, ended in 2014. The position transformed into the Area Soil Health Technician position, which is funded with a Clean Water Fund grant awarded to the SE MN Technical Support Joint Powers Board. In addition to managed grazing practices, he assists producers with cover crops. Dean Thomas, the Soil Health Technician, assisted producers with signing up for EQIP cover crop practices:

- 31 producers in Fillmore County for 1883.73 acres (\$106,227.00); 5 in Wabasha County for 509.8 acres (\$40,520.00); and 1 in Mower County for 235.0 acres (\$19,183.00).
- He conducted spot checks on over 3600 acres of cover crops in Fillmore, Mower, and Wabasha counties and worked on a seeding plan for a Wabasha County producer and an aerial seeding plan for a Rice County producer.
- He helped develop NRCS standards for cover crops/seeding and worked with NRCS staff to develop cover crop recommendations for the RMA standards.
- He helped organize and presented information for seven field days and meetings, including one on August 22nd with CPS to demonstrate a Rowbot for seeding cover crops in standing corn (70 people attended). He hosted a training for NRCS and SWCD Area 6 staff at his farm on July 16th on precision Ag and rotational grazing (60 people attended).
- He conducted prescribed grazing checks for EQIP: 552 acres for 9 producers in Fillmore County whose payments totaled \$20,424.00 and 236.5 acres for 4 producers in Winona County whose payments totaled \$8,750.50. He revised two grazing plans. He worked with nine producers in Fillmore, Houston, Olmsted and Winona counties to install grazing practices (pipelines, fence, frost seeding, heavy use protection) and conducted spot checks on 13 grazing contracts covering 1028 acres in Winona and Fillmore counties. No new grazing plans were done this year due largely to uncertain economics related to the cattle industry. He assisted NRCS with standards for grazing and out wintering.
- He attended the EQIP local work group meetings in four counties and attends the Freeborn County soil health meetings.

- He helped plan and attended the National Grazing Land Coalition Initiative tour in Minnesota which visited 3 grazing farms.
- He works with Extension and NRCS to distribute the Grazing Gazette, which goes out to over 1000 producers in three states every other month. He also contributed to the state grazing newsletter.
- He participates in the teleconferences for grazing specialists around the state, as well as the National Grazing Coalition, Midwest Perennial Working Group, and GLCI.
- A second application submitted to the National Wildlife Federation for a Cover Crop Champions grant provided funding for a Farmer Champion and an Outreach Champion to do outreach related to cover crops. Josh Simon, a local farmer who has used cover crops for several years, and Dean were paid for their time and other expenses to meet with agronomists, write articles, conduct radio interviews and plan and hold a field day. (The compensation for Dean's time is used as a match for the state grant.) A March 13th meeting with agronomists from the local area provided a forum for them to ask questions about seeding methods, timing and financial assistance for cover crops. A field day was held on April 17th at the Simon farm which was attended by about 40 people. Dean assisted Mower SWCD and NRCS with another Cover Crop Champions grant application submitted December for 2015 activities in Mower County. That grant was awarded and will be used for a field day and other promotional activities for cover crops.



Josh Simon and Dean Thomas presenting information at the April 17th field day.

Volunteer Nitrate Monitoring Network Grant (a.k.a. Domestic Well Network)

A network of volunteers was established in 2008 to monitor nitrate in drinking water wells in Fillmore County and eight other southeast Minnesota counties. The network of 675 wells includes 119 in Fillmore County. Sample results were mailed to participants in June from the August 2013 sample round (delayed due to problems at the lab). The 2014 samples were coordinated through the Olmsted County Health Department Lab. They mailed out the bottles and the samples were mailed directly back to the lab by the participants. SWCD staff assisted with updating the mailing list. The project was funded initially with 319 grants to the SE MN Water Resources Board. Current funding is from the MN Pollution Control Agency to the Board to continue the project until 2015.

Root River Watershed Restoration and Protection Strategy (WRAPS)

In March 2011, a contract was signed between the SWCD and the MPCA to begin work on the Root River Comprehensive Strategy, now known as the WRAPS. The SWCD was tasked with completing the WRAPS table by June 30, 2014, based upon the results from the TMDLs, Stressor Identification, and other assessment work that was completed through MPCA's One Watershed Approach, and from input provided at local civic engagement events. The strategy table lists all impaired reaches (>40

total) in the watershed, all the impairments in each reach and the land use practices to address each impairment. Under the MPCA contract, the SWCD was also responsible for administering subcontracts, collecting water quality samples, and leading civic engagement efforts. The Citizens' Group that implemented civic engagement activities in 2013 held follow up events in 2014 in five locations in the watershed. About 40 people attended in all, a much lower attendance than the 2013 events, but still a good number to get feedback on implementation strategies proposed in the WRAPS. The Citizens' Group continued to meet beyond the end of the grant to determine how to move forward and has begun the process of becoming a non-profit organization, calling themselves the Friends of the Root River (FORR).

Root River One Watershed, One Plan Pilot Project

The Root River watershed was selected on June 25th as one of five pilot projects around the state for BWSR's One Watershed, One Plan. Meetings with local staff from the six counties and SWCDs began in July. A Planning Workgroup was formed by these local staff, which has been meeting at least once a month since then. The BWSR grant for \$185,899 was approved and the grant agreement was signed in January after all LGUs had signed an MOA for the planning process and a work plan and budget were submitted. The majority of the funding is being used for the services of Houston Engineering as a consultant to write the plan, gather and analyze watershed data and facilitate meetings and the processes used to prioritize and target implementation activities in the plan. According to the MOA, a Policy Committee has been established composed of elected representatives from each of the six County Boards and SWCD Boards plus the Crooked Creek Watershed District. 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 plan will utilize the Root River WRAPS as a framework for prioritizing and targeting implementation. In addition to the surface water concerns in the WRAPS, other concerns in the plan will include such things as ground water, land use, ecological resources and economics.

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 will also calculate annual loads using the FLUX32 model. The contract for this project was amended to extend it for one year.

MPCA SE MN WRAP Nitrogen Planning Grant

This grant for \$56,717 funds investigations of nitrate transport in karst using spring monitoring and a network of lysimeters to collect soil water samples below the root zone under various land uses. SWCD staff collect water samples at three spring locations at the Lanesboro Fish Hatchery once a month and during 2-3 runoff events for a total of 12-15 samples per year. The samples are prepared and shipped to a lab for analysis as quality control for the continuous nitrate equipment located at each of the spring sites. Staff also maintain and troubleshoot the equipment. The SWCD administers a subcontract with Winona State University to maintain a network of about 50 lysimeters in locations around SE MN under various land uses, e.g. row cropland, CRP, golf courses and lawns. Soil water

samples are collected from April through October and analyzed using MDA nitrate testing equipment. Data is updated as soon as the analyses are completed and downloaded into a DropBox site where the landowners can access the data online for the lysimeters on their own land. Annual reports are also printed and sent to the landowners with an explanation of the results.

MDA “Field to Stream Partnership”



Spring snowmelt remains one of the most challenging times of year to collect samples due to the daily freeze-thaw cycles. Ice and snow in and around the flumes must be removed whenever they build up in order for the equipment to work properly. 3/17/2014

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 collected at the in-stream sites. 2014 marked the fifth year for collecting baseline data. A contractor has been hired to conduct farm walkovers with the

farmers in the watershed to identify conservation needs starting in 2015. As BMPs are implemented, changes in water quality will be monitored. The Crystal Creek site is in an area with many sinkholes and streams, 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.

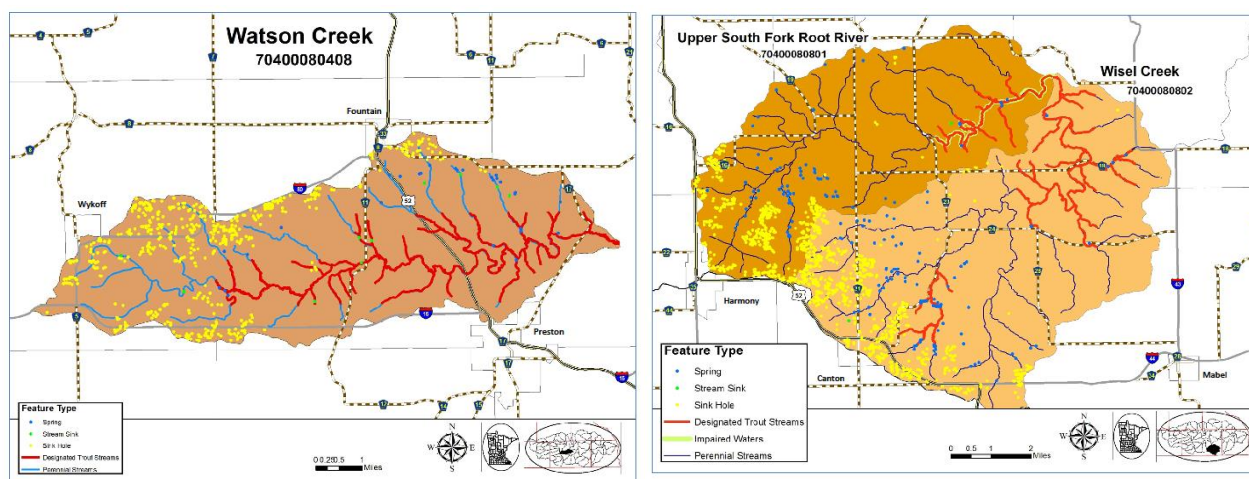
Work will begin in 2015 on a new agreement with MDA to continue funding the project another two years. The funds are used for staff to administer the subcontract with Mower SWCD and 0.75 FTE in the Fillmore SWCD to collect samples, maintain equipment and manage the data.

Special EQIP funding is available through the Mississippi River Basin Initiative (MRBI) from USDA-NRCS in 2015. The Lower South Fork of the Root (which includes Bridge Creek) and Willow Creek (which includes Crystal Creek) are among five subwatersheds in Minnesota being submitted for funding for FY15 to FY18.

Minnesota is one of three states participating in a Conservation Innovations Grant to design and evaluate simplified edge-of-field monitoring equipment. MDA is leading the project in Minnesota and has selected the Root River as one of the watersheds in which to install two sites. The SWCD is providing a cash match for this project.

Mississippi River Basin Initiative (MRBI)

The Fillmore SWCD submitted MRBI applications for two sub-watersheds in the Root River watershed in 2010: Watson Creek and the Upper South Fork Root River/Wisel Creek. Priority practices in these watersheds are ag waste storage for dairy and beef producers, nutrient management for operations utilizing manure, and grazing management. These priorities utilize the existing technical staff already housed in the SWCD office and benefit livestock production, which is crucial to maintaining hay and pasture acres in the steep terrain of the Root River watershed.



In August of 2011, agreements were signed with The Nature Conservancy and the USDA Natural Resources Conservation Service for technical assistance funds to hire staff to meet one-on-one with producers in MRBI watersheds and the rest of the Root River to update their USDA HEL conservation plans and identify conservation needs that could potentially be addressed with the MRBI EQIP and WHIP funding. Plans are also being completed for expiring CRP acres and USDA Sodbust requests. From October 2011 to August 2014, a total of 441 were completed on 44,063.52 acres. The soil savings total 190.45 tons per year from those acres and phosphorus has been reduced by an estimated 23,237.97 pounds per year. As a result of the planning efforts, 22 EQIP contracts were signed in 2012 and 2013, and 12 of the projects are completed with the remainder scheduled to be completed in 2014. The projects completed treat 1,792 acres of drainage area. In addition, EQIP contracts signed for FY2010 and 2011 prior to the start of the planning efforts funded four ag waste systems, five nutrient management plans on 1,385 acres, cover crops, waterways and a WHIP native planting.

Clean Water Fund Soil Erosion Grant

With the end of the MRBI technical assistance funding, updating conservation plans is continuing with funding from a FY14 Clean Water Fund Grant for \$145,000. This funds 0.75 FTE to update USDA

HEL plans targeted to the MDA FSP watersheds, Conservation Opportunity Areas in the Root River Landscape Plan and sodbusts and CRP expirations. From August to December, there have been 57 conservation plans updated, which cover 4,785.3 acres of cropland. These updated plans have potentially saved 37.88 tons of soil and reduced phosphorus losses by 1687.09 lbs.

Clean Water Fund Community Partners Grant

A FY13 Clean Water Fund Community Partners Grant for \$45,240 is providing funding to local groups and organizations to install stormwater practices. A mini-grant program was established in 2013 with applications and funding criteria. One project was completed in 2014 in Spring Valley by the Kingsland Courtyard Committee who planted rain gardens and installed rain barrels to treat and reduce the stormwater runoff from the school buildings around the courtyard. Two more projects are preparing applications for projects to be installed in 2015.

DNR Healthy Forests for Healthy Water Grant

A Clean Water Fund Grant from the DNR for \$98,000 is providing funding for a forestry consultant to work with landowners in each of two watersheds in the Root River identified as having significant lands adjacent to public lands with high quality native vegetation. In Riceford Creek watershed, which extends into Houston County, 51 landowners received letters 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 in the plan. Six cost share contracts have been approved by the SWCD Board so far in Riceford Creek watershed. A second forestry consultant is working in Rush-Pine Creek watershed, which extends into Winona and Houston counties, where 87 landowners received letters offering the same services. The grant provides funding through June 2016. These activities help achieve goals in the Root River Landscape Stewardship Plan, which was completed in 2013. The SWCD was a partner in completing the plan and administered two grants for a consultant to write the grant and conduct landowner outreach.

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 62 General CRP conservation plans for re-enrollments and new enrollments on 468 acres. Staff time includes management of the plan files both preparing for the enrollment and follow up after enrollment. The SWCD added storm water projects to the work plan in 2011, so some work is being done to provide assistance with storm water education and promoting the SWCD's rain barrel 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. Three staff are

trained to analyze samples. There were 102 well samples and one special project sample analyzed in 2014. An internal audit was completed by staff and an external audit was completed by an independent contractor in 2014. All findings from the external audit were corrected and the information entered into the ELDO database. Nitrate samples are also analyzed at no charge to the client using MDA nitrate testing equipment.

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. Andrew Love from Fillmore Central School is the 2014 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. Bailey Duxbury of Chatfield is the 2014 Returning College Student Scholarship Award recipient.

Forestry Education:

Lost Creek Hiking Trail: In 2011, the SWCD formed a Forestry Committee at the suggestion of the 2010 Outstanding Conservationists who actively manage the woodlands on their farm. They are members of the committee along with a forestry consultant, SWCD staff and Board members, and other interested landowners. Among the accomplishments are the development of educational materials and activities centered around the Lost Creek Hiking Trail where several forestry BMPs have been implemented. A brochure provides details about the practices signed along the trail. The brochures are accessible at each end of the trail for hikers to pick up. A map in the brochure shows where the BMPs are located and marker signs are placed along the trail at these locations. The cost of the brochures and signs were paid by the SWCD. In 2014, the Bluff Country Hiking Club received a grant from People's Energy Cooperative's Operation Roundup to install Play Clean Go signs about invasive species boot brushes on kiosks with boot brushes at four locations along the trail. The SWCD assisted with the grant application, designing and ordering the signs, and hiring the interns who installed the signs.

Field Days: Summer interns hired in 2010-2014 helped organize landowner field days in July utilizing lists of landowners in three counties from the MN Forest Resources Council. About 40 people attended the field day in 2014 held at Isinours Forest Management Unit north of Preston. The group toured the bluff prairie restoration sites, which have been cleared of cedars and buckthorn and then burned to restore the prairie plants. Other management units for oak, pine, butternut and walnut were part of the tour.

MN Woodland Owners Conference: A display about the Lost Creek Hiking Trail was set up at the MN Woodland Owners Conference held in Rochester April 25th-26th. Forestry Committee members Tim Gossman and Bill Bailey also hosted a tour of their woods on April 25th. On the 26th, SWCD staff gave a presentation about how the Root River Landscape Stewardship Plan is being used to promote management of private lands in Conservation Opportunity Areas with high biodiversity and high quality native vegetation and the benefits for water quality, wildlife, aesthetics, etc.

Permaculture Farm Tour

The SWCD was a co-sponsor for the September 3rd tour of the Mark Shepard permaculture farm in Viola, WI. Other sponsors included MN Sustainable Agriculture Research and Education and the University of Minnesota SE Regional Sustainable Development Partnership. The SWCD contributed towards the transportation costs for a bus for the 41 attendees.

6th Grade Field Day:

About 150 students from three schools participated in the annual 6th Grade Field Day at Forestville/Mystery Cave State Park on September 24th. Presenters were from DNR Fisheries, Forestry, Parks and Law Enforcement, Tri-County Electric and Historic Forestville.



Presenters from Historic Forestville

Women Caring for the Land Workshop:

The SWCD assisted with organizing a Women Caring for the Land workshop in Lanesboro on June 19th in cooperation with MN Renewing the Countryside, MN NRCS and the Women, Food and Agriculture Network. Invitations were sent to about 1200 women landowners in Fillmore County. About 20 women attended. The morning session had a soil health theme with soil health demonstrations and presentations about practices that enhance soil health. Women staff members from the Fillmore and Winona SWCDs and NRCS were present to answer questions about programs. The afternoon session was a field trip to the Brian and Judy Hazel farm north of Lanesboro where several soil health practices are being implemented: cover crops, no-till, and manure management. U of M also had several cover crop plots demonstrating various types of cover crops on their farm.

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 as Decorah Shale seeps can be. The landowners are fencing cattle out of the area and paying for half the cost of prairie cordgrass plugs (~\$1500) to plant 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 SWCD has measured elevations and

will do so periodically for further documentation of any movement of the hillside after the planting is completed. A SWCD Board member is assisting with planting the grass plugs.

Area and State Envirothon:

A staff member from the SWCD assisted with planning and staffing the 2014 Area Envirothon, which was held May 7th.

Fillmore County Fair Display: Various posters providing information about SWCD programs and projects were on display at the 2014 Fillmore County Fair. This year's booth was in the Commercial Building, which was a better venue for walk-through traffic. Offering nitrate testing also drew in more people. The SWCD purchases one half hour of air time on the local radio station during the fair to interview staff and Board members about current SWCD programs.

Nitrate Clinics:

Nitrate clinics were held in cooperation with Fillmore County Public Health radon clinics at four locations in February. Three were in conjunction with open houses at three implement dealers in Chatfield, Rushford and Preston and one with the National Trout Center in Preston.

"Conservation Chronicles" Newsletter: On February 3, 2014, 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 most of 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 were posted on the SWCD website. An email notice of the posting was sent to those landowners providing their e-mail addresses. 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: On May 9th, two presentations were given at Kingsland Elementary in Spring Valley for about 40 3rd grade students for the Ag in the Classroom program. The SWCD had a display and gave away tree seedlings at the Root River Valley Earth Day celebration in Lanesboro on April 26th.

Conservation Corps Minnesota Apprenticeship Program:

Two Conservation Corps apprentices were placed with the SWCD in 2014. Having two apprentices proved to be very helpful to the SWCD due to the vacancy in the Conservation Technician position from May to August. The apprentices helped with water quality monitoring activities, the forestry field day, 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 in 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 12 precipitation monitoring volunteers, one who has been monitoring rainfall for 36 years, one for 23 years, and seven 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.

District Website (www.fillmoreswcd.org)

The district's first website was created in July, 1999. A new site was created in 2007, then was 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.