

Fillmore Soil and Water Conservation District Annual Report



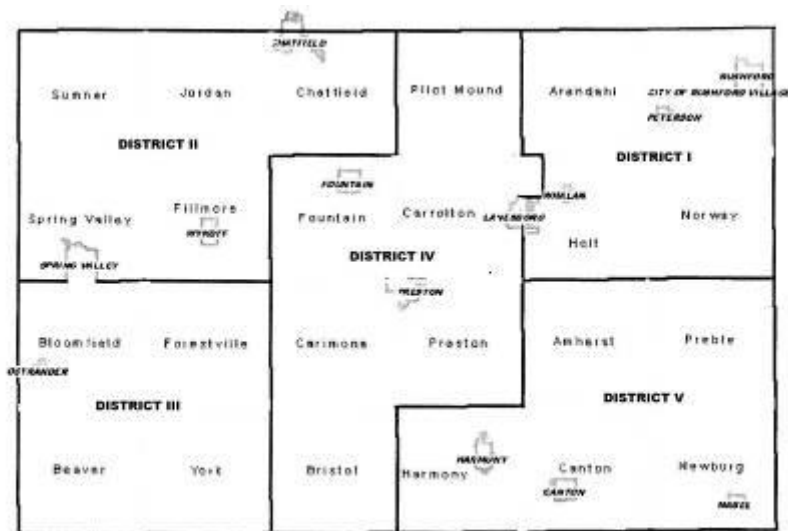
2012

Personnel Resources



Board of Supervisors

Back Row: Travis Willford – Vice Chair; Leonard Leutink – Chair; Timothy Gossman - Treasurer
Front Row: Pamela Mensink, Brian Hazel – Secretary



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

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

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

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

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

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

Soil and Water Conservation District and Natural Resources Conservation Service Staff



Front Row: Steve Erickson, *NRCS Soil Conservation Aide*; Robert Joachim, *NRCS District Conservationist*; Donna Rasmussen, *SWCD District Administrator*; Ryan Thesing, *SWCD Conservation Planning Specialist*; Dean Thomas, *SWCD Grazing Management Specialist*; Joe Magee, *SWCD Water Planner/TMDL Coordinator*; Rick Grooters, *SWCD Resource Conservation Technician*; Jeanette Serfling, *SWCD Administrative Assistant*; Anne Koliha, *SWCD Engineering Technician*;

Back Row: Dawn Bernau, *SWCD Nutrient Management Specialist*; Doug Keene, *SWCD Resource Conservation Technician*; Jennifer Ronnenberg, *SWCD Conservation Technician*; Jackie Byam, *NRCS Soil Conservationist*; Angela White, *NRCS Conservation Technician*

COOPERATING AGENCIES

Basin Alliance for the Lower Mississippi in Minnesota (BALMM)
Bluff Country Hiking Club
City of Chatfield
City of Lanesboro
City of Mabel
City of Preston
City of Rushford
City of Rushford Village
City of Spring Valley
Conservation Technology Information Center (CTIC)
Eagle Bluff Environmental Learning Center
Fillmore County Association of Townships
Fillmore County Auditor/Treasurer
Fillmore County Commissioners
Fillmore County Emergency Management
Fillmore County Feedlot Office
Fillmore County GIS
Fillmore County Highway Department
Fillmore County Planning and Zoning Commission
Fillmore County Public Health
Fillmore County Recorder
Fillmore County Solid Waste
Fillmore County 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)
Minnesota Board of Water and Soil Resources (BWSR)
Minnesota Department of Agriculture (MDA)
Minnesota Department of Health (MDH)
Minnesota Department of Natural Resources – Forestry Division (DNR)
Minnesota Department of Natural Resources – Waters Division (DNR)
Minnesota Department of Natural Resources – Fisheries Division (DNR)
Minnesota Pollution Control Agency (MPCA)
National Association of Conservation Districts (NACD)
National Trout Center, Preston, MN
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, 2012 through December 31, 2012.

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

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

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

MISSION STATEMENT

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

SERVICES AND PROGRAMS

Technical assistance to landowners for the implementation of conservation practices

- Two Conservation Specialists
 - Assist landowners with planning and design of practices, such as grassed waterways, terraces, grade stabilization structures, ponds, windbreaks, etc.
- Feedlot Engineering Technician
 - Assists livestock producers with planning and design of feedlot runoff control practices, such as freshwater diversions, filter strips, picket fences, etc.
- 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
- Grazing Lands Management Specialist
 - Assists livestock producers with developing and implementing prescribed grazing plans that meet NRCS standards, such as fencing, pipeline, and interseeding, as well as helping to find financial assistance for implementing the practices
- Conservation Technician
 - Assists landowners with enrolling in the Conservation Reserve Program (CRP) and similar programs that establish permanent vegetation including conservation buffers
- Conservation Planning Specialist
 - Assists landowners with updating their conservation plans to ensure that soil productivity is maintained and that eligibility for the farm program is maintained
- Wetland Conservation Act Administration
 - 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 \$4,000 for grassed waterways, terraces, grade stabilization structures, windbreaks, well sealing and other practices on the state cost share docket
- Feedlot Water Quality Management Cost Share Program and Clean Water Fund Grants: 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 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

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

- 2011 Fillmore County Plat Books: available for sale for \$30
- 2005 Fillmore County Plat Books: \$10
- 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: \$20/sample
- 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

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
 - Two staff are licensed inspectors who assist the Zoning Office with the inspection of newly installed septic systems
 - The Conservation Specialists provide assistance on soil erosion complaints made to the Zoning Office to determine the extent of the erosion and how to remediate it
 - The SWCD staff provides assistance to the Zoning Office with wetland determinations in the Decorah Shale Overlay District and with landowner requests related to the county's sinkhole ordinance.
- USDA
 - SWCD technical staff provide assistance for planning, designing, and implementing practices funded through federal Farm Bill programs such as EQIP, WHIP and CRP
 - The SWCD submitted two applications for the Mississippi River Basin Initiative (MRBI) for additional EQIP and WHIP funding in Watson Creek and the Upper South Fork Root River/Wisel Creek watersheds for practices that reduce sediment and nutrient runoff. Over \$500,000 of funding was available in FY2011. Two more years of funding remain for these watersheds.
 - The Conservation Technician is partially funded with a BWSR Farm Bill Assistance grant to assist landowners with completing CRP Conservation Plans; 24 CRP plans were completed for sign up #41 for general CRP plus 28 Continuous CRP re-enrollments. Combined with ten new enrollments, 931 acres were enrolled in all.
- MN Pollution Control Agency
 - The SWCD is the lead agency for the Root River Turbidity TMDL and staff is completing the final report for that 3-year study. The Root River Comprehensive Strategy began in March 2011. The SWCD administers subcontracts and provides staff for water quality monitoring, equipment maintenance, and leading civic engagement efforts.
- MN Department of Agriculture
 - The SWCD has a Joint Powers Agreement for the MDA Field to Stream Partnership in which subcontracts and payments are administered by the SWCD, staff assist with edge-of-field and in stream monitoring activities and with landowner farm practice surveys.
- SE Technical Support Joint Powers Board
 - Membership dues paid annually in return for engineering support for feedlot projects

- The SWCD is a subcontractor with the JPB for Clean Water Fund for a Nutrient Management Specialist position which serves five southeastern counties.
- SE MN Water Resources Board and Water Resources Advisory Committee
 - The Water Plan Coordinator is the staff liaison to these organizations.
 - The SWCD is a sub-recipient of 319 grant funds for feedlot fixes and technical assistance.
- 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.
- Root River watershed
 - The SWCD is the lead agency for the Root River Turbidity TMDL Final Report and the Root River Comprehensive Strategy
 - The SWCD houses the Grazing Management Specialist who works throughout the watershed as well as in the Whitewater watershed and adjoining watersheds in Winona County
- Upper Iowa watershed
 - SWCD staff assist with water quality sampling at three sites 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 assist with placing and collecting charcoal bugs in the springs and with collecting water samples that are analyzed for nitrate concentration
- The Nature Conservancy
 - Grant funds awarded to the SWCD were used to fund a \$20/acre incentive for planting cover crops in the Root River watershed including in the MRBI watersheds.
 - Grant funds awarded to the SWCD for targeting landowner outreach to restore hydrology in the TNC priority watersheds in the headwaters of the Root (Bear, Deer, Spring Valley, Forestville, and Canfield creeks and the Middle Branch of the Root)

DISTRICT PROGRAMS, ACTIVITIES AND ACCOMPLISHMENTS

State Cost Share Program

In 2012, a total of \$6,997 in state cost share funds were paid out to install

- 5,320 feet of grassed waterways
- 4 windbreaks

The SWCD's state cost share allocation was reduced from \$43,432 in FY09 to \$23,520 in FY11 due to state budget cuts. The FY13 allocation is \$31,576.



Farmstead Windbreak

2012 Outstanding Conservationists

The Minnesota Association of Soil and Water Conservation Districts (MASWCD) named Duschee Hills Dairy one of eight Area Finalists in the 2012 Outstanding Conservationist Award Program. The Mathisons were recognized at a Dec. 4 luncheon at MASWCD's 76th 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.



Pat and Chris Troendle representing Duschee Hills Dairy with Paula Mohr of The Farmer

Duschee Hills Dairy, comprised of Pat and Chris Troendle and Ben and Darla Taylor, is a

fourth-generation farm near Lanesboro. They milk 200 Holstein and Crossbred cows and have 200 young stock. Heifers and dry cows are rotated on 70-80 acres of pasture. They also operate 530 acres of cropland, of which 300 acres has greater than six percent slope and nearly 80 acres are in the floodplain. They protect these sensitive areas in their corn-hay rotation with 250 acres of hay in contour strips connected to an extensive network of waterways and buffers. Minimum tillage, cover crops, nutrient management, and integrated pest management ensure that the land will remain productive for future generations. Combined with the commitment to educating the non-ag community about agriculture, they are leaders in the conservation 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.

2012 Tree Program

The District sells a variety of bare root trees and shrubs and bare root and potted conifers. 2012 sales included 11,527 bare root stock and 1,759 potted stock sold to approximately 200 individuals, municipalities, and organizations in and around Fillmore County. For Earth Day, 50 free Redosier dogwood seedlings were given to those attending the event in Lanesboro.



Feedlot Water Quality Management

Two feedlot projects funded with FY12 Clean Water Fund were completed in 2012 totaling \$78,568 in cost share in combination with local and 319 cost share funds, EQIP and Ag BMP Loan funds. Another project was funded utilizing \$5,000 from the county Feedlot Base Grant and \$15,000 from a 319 grant from the SE MN Water Resources Board. A FY13 Clean Water Fund Grant for one feedlot project was approved for \$175,043.

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. She has a total of 164 NMP contacts and 120 plans on over 64,000 acres. As of January 1, 2011, there is a charge for the plans--\$300 for a new plan and \$100 for an updated plan. The fees help to meet match requirements for the Clean Water Fund grant. The FY12 Clean Water Fund Grant funds the position to the end of 2014.

Manure Plot Update

The 2011 plot is complete. The 2012 plot tested second year manure credits and three different N rates. A poster and handout of the 2011 results were completed from the manure plot. Results were published in the Southern MN Nutrient Efficiency Coalition Grant Maximizing Nutrient Efficiency to Address Water Quality in the Upper Mississippi River Basin 2011 Participant's Reports. They were handed out at the 2012 Nutrient Efficiency and Management Conference in Rochester, MN. The funding for the 2012 plot is from the MDA Field to Stream Partnership grant. The results will be presented at small watershed meetings in Fillmore and Winona counties. They will also be available to all the customers who have worked on plans.

Nutrient Management Articles

1. Dec 2011/Jan 2012 Newspaper article "Nutrient Management Focus."
2. 2012 spring SWCD online newsletter article "How can I improve Nitrogen efficiency on my farm and how will it save money."
3. 2012 Winona paper CWL interview; a farmer from Winona County was also interviewed to highlight how BWSR's Clean Water Funds are being used.
4. 2012 North American Manure Expo 2012 newspaper insert
5. Nutrient Management Plans 2012 winter on line newsletter

Workshops and Field days attended:

1. Winter Crops Days meeting U of M Extension 1/11/12
2. Winter Grazing meeting 1/21/12
3. Nutrient Efficiency and Management Conference @ Jackpot Junction, MN 2/15/12
4. Fillmore County No-Till Field Day 6/28/12
5. U of M Crop Management Tour @ Rochester 7/10/12
6. U of M Alfalfa/Corn field day @ Eagle Bluff 7/16/12
7. Nitrate Education Forum @ Rochester 7/25/12
8. North American Manure Expo @ Prairie du sac WI 8/21/12-8/22/12
9. IA Integrated Crop Management Conference @ Ames, IA 11/28/12-11/29/12



2012 North American Manure Expo
Manure digester in the background

Presentations:

1. 1/11/12 Winter Crops Days meeting U of M Extension, gave presentation on the Manure Plot results from 2011 with Kevin Keuhner, MDA.
2. 1/21/12 Winter Grazing meeting; presentation on the Manure Plot results from 2011
3. 1/31/12 JPB meeting; presentation on the Manure Plot results from 2011
4. 2/15/12 Nutrient Efficiency and Management Conference @ Jackpot Junction, MN. Set up manure plot poster and brochures for people to view and answered questions about the plot. I believe there were around 300 people in attendance that day.
5. 2/29/12 Winona County Feedlot Producer Meeting; presentation on the Manure Plot results from 2011 with Kevin Keuhner, MDA.
6. 6/19/12 Fillmore SWCD & Fillmore MPCA Feedlot Field Day @ Brian Hazel's Dairy Farm; presentation on Nutrient Management Plans and the Manure plot along with general Nutrient Management tips and advice.
7. 6/20/12 BALMM meeting presentation on Manure Plot and Nitrogen Management with Kevin Keuhner.
8. 9/19/12 Goodhue Co Nutrient Management Field Day manure management presentation with Katie Richards

Nitrogen Fertilizer Management Planning (NFMP) Advisory Committee

The Nutrient Management Specialist is a member of the Advisory Committee, which is in the last steps of the NFMP review. A final draft of the NFMP will be available in February 2013. After the draft is approved, there will be several public meetings held around the state for the public to submit comments. After the comments are reviewed, MDA will revise the NFMP again, and the final version will be sent for final approval by the governor.

NFMP meeting 7/24/12 @ Mankato

NFMP Aug meeting not in attendance but sent chapter review comments

NFMP meeting 9/25/12 @ St Paul

NFMP meeting 10/23/12 @ St Paul

NFMP meeting 12/19/12 @ Mankato

NMP Software

The U of M software has been updated to work with Windows 7 and access 2010. Kevin Keuhner from MDA is working on a NMP spreadsheet that will be reviewed in January 2013 followed by testing. Plans are also completed using MPCA MMP software. Plans are to streamline plans in the future to be more farmer-friendly so they are used more, yet still meet all the requirements.

Nutrient Management Tools: Watson Creek Watershed and Rush-Pine Creek Watershed:

Groups of farmers in each watershed were interested in Basal Stalk Nitrogen Testing. The group in Watson Creek did the tests in 2011 with plans to do another round of testing in 2012. However, drought conditions in the fall changed those plans since the results would have been unreliable. As an alternative, soil N tests were done at 12" and 24" depths in fields where corn is planned for planting in 2013. Follow up soil N tests will be run again in the spring before fertilizer is applied to those fields to better understand how nitrate concentrations change over the winter. If conditions are favorable, the stalk nitrate tests will be conducted in the fall of 2013 on those fields.

Southeastern Minnesota Soil Water Monitoring Network:

The network is comprised of sites in SE MN where soil water nutrient concentration are measured throughout the spring, summer, and fall. A soil water sampler, also known as a lysimeter, is buried in the soil. A vacuum created inside the sampler draws water into an internal chamber through a porous ceramic tip. The water is retrieved through a small sampling line at the surface of the soil. The network will evaluate the amount of N leaching below the root zone under various land uses. The Nutrient Management Specialist and Grazing Specialist were the main contact people to find producers willing to install the lysimeters in Fillmore County. Winona State University (WSU) students collect and analyze the samples and the results are compiled and interpreted by Dr. Dogwiler at WSU. The 2011 results were shared with the landowners in 2012. The 2012 results have been compiled to be shared with the landowners in 2013. The project is a cooperative effort between Fillmore SWCD, MN Department of Ag and Winona State University.

Grazing Management

The Grazing Specialist provides free assistance to livestock producers in the Root River and Whitewater River watersheds plus the adjacent watersheds in Winona County. The position is funded through a Clean Water Fund grant awarded to the Fillmore SWCD. There has been a grazing specialist on staff since March 2007 with the current person in that position since April 2009. To date, grazing management plans have been completed on over 3200 acres, and implementation of the plans has utilized over \$970,000 in EQIP funds to install almost 230,000 feet of pipeline and 373,000 feet of fence. He worked on 11 new grazing plans for EQIP, two of which were funded through FY 12 MRBI and four of which were for FY13 EQIP. He conducted site visits on about 40 farms, some several times to get information for doing plans, GPSing fence or pipeline installations, checking seedings and other practices, and troubleshooting problems. He also completed status reviews for EQIP (including 76 for old EQIP contracts for the state office) and worked on NRCS standards for fencing, seeding and pipeline practices. Using a grant from GLCA and local sponsors, the monthly Grazing Gazette is being published and mailed to over 700 grazers. He helped plan and participated in summer field days with NRCS and U of M Extension and Vet School staff. Grant proposals for pasture renovations and rotational grazing research were completed. He has participated in several teleconferences with GLCA and NRCS Grazing Specialists and gave 3 presentations to U of M Vet School students about grazing

operations. Attended and provided information at Tour de Forage, U of M Cow/Calf Days, Tri-State Conservation Grazing Workshop, SWCD grazing field day, and NRCS grazing training sessions, Winona/Fillmore Local Work Group Meeting, soils webinar in Rochester, Rush-Pine Grazing and Soils Workshop, Midwest Forage day, Plant ID Training, Field Day at Dairy Farm, and Tri-State Grazing Workshop in North Dakota. He assisted with helping producers with the Emergency CRP Haying & Grazing program and with Napa Insurance claims for pastures due to the drought conditions. He has had a very active role with the Fillmore SWCD & NRCS promoting the cover crop program.

SWCD Cover Crop Program



Utilizing funds from The Nature Conservancy, a \$20 per acre incentive payment to plant cover crops following corn silage or soybean harvest was offered for producers in the Root River watershed and in MRBI watersheds where the maximum EQIP payment was \$16/acre. The MRBI incentive was \$4/acre to get the total payment to \$20/acre. A total of 826.3 acres of cover crops were planted utilizing the incentive payment. TNC funding totaled \$14,602. Some participants tried different options, such as oats or a combination of oats and tillage radishes (see picture above).

Volunteer Nitrate Monitoring Grant

A network of volunteers was established 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. Samples were collected by the volunteers in August 2012 and sent to the SWCD office for analysis. MDA provides Hach spectrophotometers to analyze the samples. Of the 73 samples returned, 3 samples (4%) had nitrate levels above 10 parts per million (ppm); 10 ppm is the safe drinking water standard. All 3 wells were pre-code wells. The project was funded initially for two years from a 319 grant to the SE MN Water Resources Board. A Clean Water Partnership grant was awarded to the Water Resources Board to continue the project until 2013.

Root River Comprehensive Strategy Project

In March 2011, a contract was signed between the SWCD and the MPCA to begin work on the Root River Comprehensive Strategy. The strategy will be based upon the results from the TMDLs, Stressor Identification, and other assessment work that was completed through MPCA's One Watershed Approach. Under this contract, the SWCD is responsible for administering subcontracts, collecting water quality samples, and leading civic engagement efforts. One of the subcontracts is with Winona State University for electromagnetic resistivity imaging (ERI) and lysimeter studies to aid in understanding nitrate transport through karst. A network of more than 50 lysimeters has been installed on 18 sites under a variety of ag and non-ag land uses. Samples have been collected every 1-2 weeks depending on soil moisture conditions. The ERI studies were completed in 2012 and some sites may be revisited in 2013. Another subcontract is with University of Minnesota Extension for civic engagement activities. After meeting with about 20 community groups over the course of 10 months, a watershed citizens' group was formed with a core group of about 10 people who began meeting together in May. The Extension staff person has been providing training in leadership and facilitation skills. Those skills will be utilized in six local community events in 2013 convened by the citizen members to gather citizen input to inform the comprehensive strategy. A \$3000 grant was received from Meadowlark Institute with support from In Commons to provide food and other meeting needs for the events.



Root River Citizen Group members participating in a civic engagement exercise

Continuous monitoring equipment (turbidity and stage) remains at the South Fork Root River at Amherst. Fillmore SWCD staff collected grab samples during base flow and storm events at the Amherst and Money Creek sites. From July to December, because of lack of precipitation, base flow samples constituted the majority of the samples. Grab samples are analyzed at the Minnesota Department of Health (MDH) lab for Total Suspended Solids (TSS), Total Volatile Solids (TVS), Turbidity, Total Nitrite-Nitrate Nitrogen, and Total Phosphorus (TP). Winona State University (WSU) also ran tests for Suspended Sediment Concentration (SSC). Field measurements at each site included tape down, wire weight, staff gauge, and transparency tube readings. Temperature and pH readings were taken when possible. Results from the sediment fingerprinting samples collected in 2011 indicate a much larger percentage of the sediment coming from the uplands than was expected. Percentages from stream bank erosion were lower than anticipated. Plans were to continue to collect samples in

2012 under a contract with Utah State University in partnership with WSU to develop a sediment budget for the Root River. However, the lack of runoff resulted in no samples collected. That project will continue at least into 2013. Three continuous nitrate monitoring stations have been installed at the Lanesboro Fish Hatchery. Grab samples are collected once a month for quality control.

MDA “From Field to Stream” Project

The MDA project began in 2011. Three edge-of-field monitoring sites are established in Fillmore County. A fourth is in Mower County. The sites in Fillmore County are located in Crystal Creek southwest of Preston and Bridge Creek 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 TSS, turbidity, TP, PO₄, and nitrate-N. An in-stream monitoring station is located downstream from each of the edge-of-field sites. Grab samples and sediment fingerprinting samples are collected at the in-stream sites and at the edge-of-field sites, whenever possible. Once baseline data is established for the sites, various conservation practices will be implemented and any changes to water quality will be monitored. The Crystal Creek site is in an area with many sinkholes and streams, so dye trace studies are being 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.

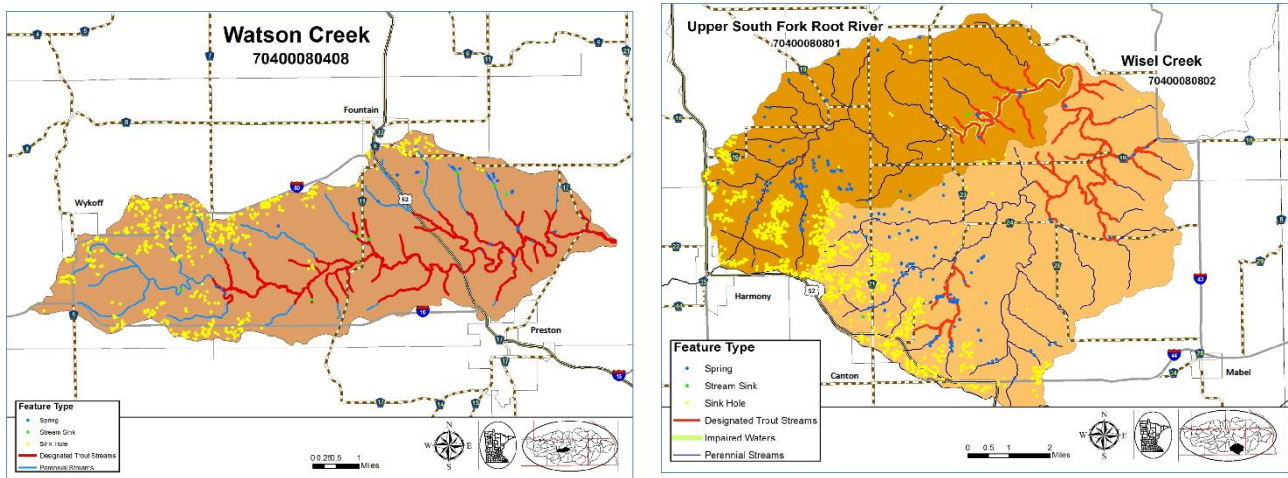
The project is funded to June 30, 2013, with funding expected to continue through 2015 and beyond. The SWCD has a contract with MDA to fund staff to administer subcontracts, collect samples and maintain equipment and to work one-one-one with the farmers in the watershed.

A video about the Field to Stream Project was made using footage shot at all three sites. The final version of the video is available on the MDA website. A lunch was sponsored by one of the participating farmers in September for all the landowners in all three small watersheds. About 50 people attended and heard presentations from MDA Commissioner Frederickson, a Discovery Farms participant from Wisconsin and MDA staff who reviewed the past year's data.

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. SWCD staff helped install a site in the Root River north of Rushford.

Mississippi River Basin Initiative

The Fillmore SWCD submitted MRBI applications for two sub-watersheds in the Root River watershed: 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 conservation plans and identify conservation needs that could potentially be addressed with the MRBI EQIP and WHIP funding. In October, a Conservation Planning Specialist was hired and is housed in the Fillmore SWCD office. From October 2011 to January 2013, 21,062.3 acres of conservation plans were completed. In Watson Creek, about 51% of the cropland acres have completed plans. In the Upper South Fork Root River/Wisel Creek, about 9% of the cropland acres have completed plans. About 18% of the cropland acres in the Fillmore County portion of Rush-Pine Creek have completed plans. A total of 620 people were contacted about MRBI efforts and funding. Of those, 159 were personal contacts. Phosphorus runoff has been reduced by an estimated 8,475 pounds per year on the acres planned using calculations in RUSLE2. The soil savings total 80.1 tons per year on those acres. Ten practices have completed designs, and seven practices have been implemented and checked out. Seven practices are still in progress and will be completed in spring 2013. Waterway practices completed are treating 956 acres.

Since 2010, the total allocation to Watson Creek has been \$837,140. EQIP and WHIP contracts have utilized \$584,007 through FY12. The Upper South Fork has had \$984,774 allocated since 2010 of which \$635,974 has been utilized through FY12. Additional funds committed from Trout Unlimited and The Nature Conservancy are helping to implement streambank protection projects and cover crops. Rush-Pine Creek watershed also received MRBI funding. About 13,000 acres of the watershed lies in Fillmore County with the remainder of the 86,000-acre watershed in Winona County. The project sponsor for the MRBI application is Hiawatha Valley RC&D.

Farm Bill Assistance

The Fillmore SWCD has staff hired with Farm Bill Assistance funds from BWSR to promote the federal Conservation Reserve Program (CRP) and to assist landowners enrolled in CRP with completing their plans. Staff completed 127 conservation plans for CRP both General and Continuous. The SWCD added storm water projects to the work plan in 2011, so some work is being done to provide assistance to cities 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 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 280 samples analyzed in 2010. Of those, 216 were from stream samples, mostly from sites in the Whitewater Watershed. The SWCD contracted with the watershed project to collect and analyze the samples. Of the 64 drinking water samples analyzed, 31 tested positive for total coliform bacteria and seven tested positive for *E. coli*. MDH conducted an audit of the lab in 2010. All requirements and the post audit report were completed in 2011.

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. Shannon Jo Merkel of Kingsland High School is the 2012 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, be enrolled in classes for fall, and not a prior scholarship recipient. Kristi Thompson of Chatfield is the 2012 Returning College Student Scholarship Award recipient.

Lost Creek Hiking Trail:

Forestry Education: 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 serve as members of the committee. Among the activities accomplished was the development of educational materials and activities centered around the Lost Creek Hiking Trail where several forestry BMPs had been implemented following damage to the walnut stand from a windstorm in 2010. The brochure was updated by the Conservation Corps Minnesota apprentice, and more BMPs were added to it as well as more signage 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 were placed along the trail at these locations. The cost of the brochures and signs were paid by the SWCD. The apprentice also organized a landowner field day in July utilizing lists of landowners in three counties from the MN Forest Resources Council. Over 60 people attended the field day.



6th Grade Field Day: About 180 students from four schools participated in the annual 6th Grade Field Day at Forestville/Mystery Cave State Park on September 19. Presentations were on the topics of recycling, snakes, animal survival, forestry, electricity safety, aquatic insects, and the Forestville Historic site.



Learning about snakes at the 6th Grade Field Day

Area and State Envirothon:

A Staff member from the SWCD assisted with planning and staffing the 2012 Area Envirothon, which was held at North Alexander Park in Faribault on May 9th.

Fillmore County Fair Display: Various posters providing information about SWCD programs and projects were on display at the county. The SWCD also 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.

“Conservation Chronicles” Newsletter: On January 16, 2012, the Conservation Chronicles was published as an insert in the *Bluff Country Reader*, a free newspaper that goes to 12,000 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: The Water Plan Coordinator conducted two nitrate clinics in Spring Valley and Rushford Village in February. In April, a presentation was given at 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 in April. The Water Plan Coordinator is on the Board for the National Trout Center in Preston and leads the Technical Advisory Group.

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 Monitor Program

The District has 11 precipitation monitoring volunteers, two of which have been monitoring rainfall for 33 years, one for 20 years, and five 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.

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. A No-till Technology Information site was added in 2010. In 2011, information added to the website included information about how to incorporate conservation requirements into ag land rental agreements, and the forestry brochure for the Lost Creek Hiking Trail.