

Fillmore Soil and Water Conservation District



2012 ANNUAL PLAN

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.

INTRODUCTION

The purpose of the Fillmore SWCD Annual Plan is to provide direction to and set goals for District staff and supervisors for the year. It serves as a tool to prioritize the workload of the district so those goals can be achieved.

The annual plan is used in conjunction with the Local Water Management Plan to help determine needs for staffing, funding and program priorities to best ensure that the district is able to implement the Local Water Management Plan, which is also the District's Comprehensive Plan.

Development of the annual plan is accomplished through an annual planning meeting conducted by staff, supervisors and other partners where all participants provide input so that the best plan with common goals can be developed.

All programs and activities are subject to funding.

GOALS/OBJECTIVES

GOAL 1: Enhance and maintain soil resources by promoting best management practices to reduce erosion and sustain soil productivity. Total Estimated Staff Days needed: 1494

Objective 1

Provide information and education to the public on soils, soil conservation practices and run-off control. Estimated Staff Days: 867

1. Provide information to the public through the media, e.g. newspaper insert, newsletter and website, about the impacts of soil erosion.
2. Appoint a committee to work with NRCS and Extension to provide information on the website, in the newsletters, through workshops/tours and other venues about how to incorporate conservation language into agricultural lease agreements.
3. Communicate with state and federal legislators about conservation programs and their effectiveness and continue to lobby for conservation initiatives.
4. Encourage the planting of soil conserving crops, cover crops and crop diversity. Pursue funding to design or retrofit equipment to seed cover crops into standing crops.
5. Provide financial and technical assistance for grazing studies and educational programs for pasture management through grazing field days and pasture management workshops.
6. Maintain the No-till informational website, and hold a no-till field day in the Mabel-Canton-Harmony area, if possible, in cooperation with Winneshiek County SWCD.
7. Investigate funding sources for side-by-side comparisons of no till and mulch till which compensates the producer for any loss in profitability on the no till acres.
8. Provide information regarding access to soil stewardship materials to churches. Include rental agreement information with notices to churches about the stewardship materials.
9. Promote and target continuous CRP for maximum soil and water benefits with emphasis on DNR protected shore land areas, sinkholes and other sensitive areas.
10. Assist NRCS with the tillage transect survey as needed to provide information to the public on the trends of tillage practices and residue management utilizing current staff.
11. Hold an annual awards event to recognize the 2012 Outstanding Conservationists and others.
12. Continue as the lead agency for the Root River Turbidity TMDL final report and continue working on the Root River Comprehensive Strategy.

13. Investigate other land management options for productive lands that consider such things as permaculture and soil quality. Post events related to these topics on the SWCD webpage, such as hazelnut information from Badgersett Farm and Wabasha County.
14. Hold a field day in the spring of 2011 on a site where winter rye has been planted to control erosion in field draws after soybean harvest as an alternative to permanent waterways.
15. Continue to partner with MDA on Root River Small Watershed Project to evaluate BMPs and work with farmers to adopt BMPs and measure performance using such things as SCI, PI, and basal stalk nitrate tests.
16. Develop a plan for maintenance of the East Willow Creek flood control structures with the County.

Objective 2

Provide funding and technical assistance for the implementation of conservation practices and best management practices that reduce soil erosion. Estimated Staff Days: 627

1. Provide assistance to the county for the implementation of the county soil loss ordinance.
2. Promote, administer and provide technical assistance to landowners for the state cost-share program. Utilize status review letters to encourage landowners to consider additional conservation needs.
3. Provide assistance to NRCS in the implementation of the Federal Programs.
4. Administer the Ag BMP low interest loan program to provide funds for conservation practice implementation and the purchase of eligible equipment.
5. Provide technical and financial support and administration of programs for planting cover crops.
6. Promote the use of the designated District account for setting aside acres to allow for summer construction of conservation practices, specifically waterways installed using state cost-share or CRP
7. Purchase a crimping machine that can be easily transported which will hold mulch in place on newly installed practices as further protection from erosion.

GOAL 2: Maintain and improve surface and groundwater quality to meet the needs of the public. Total Estimated Staff Days needed: 628

Objective 1

Reduce pollution impacts on surface and groundwater due to non-point source pollution from leaching and run-off from animal feedlots, manure storage facilities and manure applied to the land. Estimated Staff Days: 273

1. Support grant acquisition for feedlot improvements
2. Provide technical assistance for nutrient management planning and manure management.

3. Promote local cost-share programs to provide 50% cost-share for non-engineered feedlot run-off control practices and odor control (with priority to run-off control) for existing building sites. Funding may come from the feedlot base grant or SE MN Water Resources Board 319 grant funds or other funding sources.
4. Provide the Ag BMP low interest loan program for ag waste management. Promote the program through public informational meetings and presentations.
5. Conduct bacteria monitoring before and after a feedlot fix to evaluate the effectiveness of the fix.

Objective 2

Reduce the potential for pollution of surface and groundwater resources due to the karst topography. Estimated Staff Days: 37

1. Cost-share the sealing of abandoned wells using state cost share funds in accordance with the cost share criteria established by the SWCD Board.
2. Assist public water suppliers with developing and implementing wellhead protection area plans as requested.
3. Support dye trace studies and other ground water research in the Root River watershed.
4. Assist with the administration of the Decorah Shale Ordinance.
5. Investigate the environmental implications resulting from frac sand mining and cooperate with other agencies and LGUs in identifying strategies for protecting soil and water resources.
6. Facilitate meetings on ground and surface water protection to targeted audience, such as community education classes.
7. Provide education in cooperation with Extension and MDA to producers regarding nutrient management in areas with karst and other sensitive features.
8. Include in the work plan for the summer intern the implementation of a storm water demonstration project in one city in cooperation with a volunteer group.

Objective 3

Protect surface and groundwater from contamination from agricultural and non-agricultural use of fertilizers and pesticides. Estimated Staff Days: 284

1. Educate producers and landowners on the effects of over application of fertilizer and build-up of nutrients, and disseminate information on available technical and financial assistance. Promote and help recruit cooperators for additional research in nutrient management in the county for such programs as the Nutrient Management Initiative. Participate in the Conservation Technology Information Center initiative for southern Minnesota, if needed.
2. Promote no fall application of nitrogen via anhydrous ammonia, urea and 28% fertilizer focusing efforts on producers and commercial suppliers, and work with MDA on their compliance with this recommendation.

3. Continue to support the citizen MPCA Citizen Stream Monitoring Program and publicize it in the newsletter and local newspapers.
4. Cooperate with MPCA, DNR and MDA in establishing long-term surface water monitoring sites and parameters.
5. Provide information on the SWCD website regarding a waste pesticide disposal options for county residents.
6. Continue to participate in the Mississippi River Basin Healthy Watersheds Initiative for the Root River.
7. Provide support for the revision of the State's Nitrogen Fertilizer Management Plan through staff input and assistance with public meetings.

Objective 4

Provide education and information about drinking water quality and ways to protect drinking water supplies. Estimated Staff Days: 16

1. Provide training and information to local officials and others about existing tools for land management and develop a list of resource people to contact for various resource issues as requested.
2. Provide testing services for total coliform bacteria, E. coli, and nitrates. Pursue funding for equipment maintenance and certification for bacteria testing program.
3. Conduct at least two water-testing clinics as funding allows.
4. Participate in regional ground water monitoring efforts, including the Volunteer Nitrate Monitoring Network.
5. Promote the Ag BMP loans for well replacement.

Objective 5

Reduce contaminants from sewage and wastewater in surface and groundwater by ensuring that all residences have access to adequate water treatment. Estimated Staff Days: 10

1. Provide Ag BMP low interest loan funds for the replacement of failing individual sewage treatment systems.
2. Provide information on water treatment systems as requested.
3. Assist with regional 319 grants for wastewater and the Greenleafton wastewater project as needed.

Objective 6

Protect surface and groundwater from contamination due to improper solid and hazardous waste disposal. Estimated Staff Days: 6

1. Pursue funding to clean-up at least one illegal dump site and/or a sinkhole dump.

2. Participate in county's Household Hazardous Waste collection.

Objective 7

Reduce the risks to public health and impacts on surface and groundwater from petroleum products, chemicals and other potentially hazardous materials from storage tank leaks and overfills. Estimated Staff Days: 2

1. Provide education and pursue funding for on farm tank spill containment and automatic shutoff nozzles including information about setbacks from wells Post the information on the District website.
2. Conduct outreach and education with the Amish population in MRBI watersheds regarding BMPs for petroleum products near wellheads.

GOAL 3: Promote the wise use of natural resources to sustain productivity while promoting stewardship of plant and animal communities. Total Estimated Staff Days needed: 101

Objective 1

Promote the establishment of permanent vegetative cover to provide habitat for wildlife species and protect water quality and soil erosion. Estimated Staff Days: 60

1. Continue to administer the district tree program including tree sales and design of farmstead windbreaks. Include productive trees, such as hazelnuts, and pollinator species on the tree order list.
2. Provide technical assistance for developing grazing management plans and for the implementation of those plans.
3. Research and promote the sale of a seed mixture for rain and/or butterfly gardens and for CSP/EQIP pollinator species and prepare a list of available vendors for customers. Place pictures of successful plantings on the website.
4. Promote and provide funding for the Forest Stewardship Program.
5. Promote invasive species control, such as buckthorn control, including follow up management under EQIP contracts.
6. Promote re-vegetation of native species through direct mailings, news articles, radio ads, etc. and provide technical assistance to landowners for programs for establishing native vegetation, including CCRP, the BWSR Native Buffer Program and other similar programs.
7. Encourage the use of cover crops through a District education program.
8. Encourage the use of perennial crops.
9. Provide information about invasive species control on private and public lands.
10. Promote the Living Snow Fence Program and offer species on the tree sales list that are recommended for living snow fences. Work with the County to also identify suitable areas along county roads.

11. Develop a resolution to change terminology used for forest/wood land for tax purposes from wasteland or non-productive land to more appropriate and positive language.
12. Develop a resolution to encourage more uses for RIM funds in southeast Minnesota.

Objective 2

Enhance the benefits of wetlands, floodplains and shoreland. Estimated Staff Days: 41

1. Administer the Minnesota Wetland Conservation Act.
2. Work with legislators to restore funding for the Wetland Preservation Area program.
3. Cooperate with conservation groups and other government agencies to promote the use of rotational grazing in shoreland areas.
4. Assist with wetland restoration projects as requested by landowners.

GOAL 4: Carry out the duties of the soil and water conservation district in the most efficient and professional manner. Total Estimated Staff Days needed: 405

Objective 1

Support activities that will allow staff and board members to increase the capacity of the SWCD. Estimated Staff Days: 256

1. Seek funding and activities to enhance District capacity.
2. Provide funding for employee and supervisor training and development as budgeted.
3. Conduct annual performance evaluations. Begin developing individual staff work plans, that are reviewed at least once a year along with the performance evaluations while keeping the personnel policy handbook up to date with current policies.
4. Annually review and approve the District By-Laws.
5. Coordinate the activities and/or provide representation for Local Watershed Projects.
6. Encourage supervisor and staff attendance at area and state meetings.
7. Support of the Minnesota Association of Soil and Water Conservation Districts (MASWCD) and the Area VII MASWCD, State MACDE and SE MACDE (MN Assoc. of Conservation District Employees).
8. Provide board member and/or staff attendance at the Hiawatha Valley RC&D, Area VII MASWCD, SE MN Technical Joint Powers Board, and SE MN Water Resources Board meetings.
9. Participate in regional initiatives that enhance the mission statement, including BALMM and the Driftless Area Initiative.

10. Participate in EQIP local workgroup.
11. Continue to be an active participant in activities with the National Trout Center in Preston.
12. Provide opportunities for Board members to visit or tour sites where conservation practices are being implemented.

Objective 2

Conduct educational activities that promote and carry out the mission and goals of the SWCD.

Estimated Staff Days: 149

1. Coordinate efforts with other conservation organizations to carry out the goals of the SWCD (e.g. Project Get Outdoors, Eagle Cliff Root River Clean up)
2. Conduct a field day highlighting a successful feedlot project, cover crops, grazing and other practices.
3. Coordinate efforts with the Bluff Country Hiking Club and others to include additional interpretive signs, to update information in the brochure for practices that demonstrate good management of forest, prairie and cropland along the trail, and to conduct a landowner field day. Provide a link to the Hiking Club on the SWCD website.
4. Pursue grant funds for informational signs about garlic mustard and a boot scraper to reduce the risk of spreading it for the Lost Creek Hiking Trail.
5. Develop hunter education materials for the website and handouts for the county fair that describe how to reduce problems with damage to trees and property from tree stands and to encourage better relations between hunters and landowners. Provide the information to gun clubs and trainers for distribution.
6. Conduct joint meetings with County Commissioners and neighboring SWCDs annually to review District programs.
7. Hold 3-6 meetings with the Local Water Management technical committee and Citizens' Advisory Committee.
8. Update and maintain the SWCD web page.
9. Publish a newspaper insert once a year and at least two online newsletters in 2012.
10. Publish monthly newspaper columns submitted by a staff person assigned to each month highlighting projects, programs or events.
11. Conduct radio ads and public service announcements to promote the goals of the SWCD.
12. Carry out the DNR Well Monitoring Program.
13. Conduct the County Rain Gauge Monitoring Program.

14. Continue to hold a 6th grade field day with a goal of all schools participating. Invite home schooled students to the event. Have more direct contact with Lanesboro and Chatfield schools to encourage participation in 6th grade field day and other events or activities.
15. Support and assist with the Area VII Envirothon.
16. Promote and provide two \$500 scholarships, one to a graduating high school senior entering an agricultural or natural resource related field and one to a returning college student continuing education in an agricultural or natural resource related field limiting scholarships to one per individual.
17. Provide scholarships or other incentives to attend local educational events that are consistent with the SWCD's mission.
18. Provide information on natural resources conservation and renewable energy at the county fair as well as countywide throughout the year.
19. Select and promote a county Outstanding Conservationist (from District 4 in 2012) to be recognized at the annual MASWCD Convention, as well as other possible award candidates in other categories.
20. Promote District Accomplishments.
21. Participate in the FFA and 4H organizations to promote soil conservation and to provide information about careers, forestry, water testing, etc.
22. Participate in Ag in the Classroom, Earth Day and other activities in the schools and contact the schools twice a year to encourage them to utilize SWCD staff as presenters.
23. Contact schools and home schooled students regarding participation in the MASWCD poster, mural and video contests.
24. Consider hiring a summer intern to assist with existing SWCD programs and expand outreach and education on forest management and urban storm water BMPs.
25. Schedule a canoe trip/streambank tour for board and staff on the Root River to view areas of special interest for the turbidity TMDL and other studies.
26. Collaborate with Eagle Bluff on an educational event.
27. Continue sponsoring the awards for forestry and other conservation practices through 4-H and FFA and work with the leaders to encourage better participation in these programs among their members.

GOAL 5: Maximize efficiency in GIS implementation by providing current training to SWCD staff. Total Estimated Staff Days needed: 36

Objective 1

Technical support of ongoing programs and practices. Estimated Staff Days: 36

1. Train SWCD staff in “Toolkit”, RUSLE, general map development, and other applicable GIS-based software.
2. Attend various local and regional software training sessions to keep abreast of technology.
3. Perform mapping services in support of nutrient management plan development and the buffer initiative.
4. Maintain GIS database of soil and water conservation practices within the County and continue to add older practices as time allows.
5. Continue involvement in the Fillmore County Technology Committee.
6. Keep current on the use of LiDAR for preliminary designs for conservation practices and targeting of practices.

Fillmore Soil and Water Conservation District Comprehensive Plan Addendum-State Cost Share

High Priority Erosion Problems

The rolling and often steep topography of the county creates erosion problems if proper precautions are not taken. The Fillmore SWCD has targeted and will continue to target the majority of its state cost-share funds to the construction of grassed waterways that will minimize gully erosion. The remainder of the funds will continue to be used for such practices as terraces and gully control structures. Priority for these projects will be given to projects that have upland treatment of cropland that maintains soil loss to T or less as determined by NRCS RUSLE2 calculations. The Root River Turbidity TMDL study is helping to identify areas for prioritization. Updating conservation plans as part of the MRBI project will also identify areas of need.

High Priority Water Quality Problems

High priority water quality problems outlined in the Local Water Management plan are:

Fecal coliform bacteria in streams and groundwater: This will be addressed by the SWCD through the implementation of feedlot water quality projects funded with Clean Water Funds available through the Board of Water and Soil Resources and 319 grants. The SWCD will work with the Fillmore County Feedlot Officer to implement low cost feedlot run-off control projects. A Nutrient Management Planning Specialist will continue to be housed with the SWCD to assist farmers with developing nutrient management plans and mini manure management plans. The feedlot fixes and nutrient management plans reduce fecal coliform bacteria in surface and ground waters of Fillmore County. The SWCD has been awarded over \$180,000 in Clean Water Fund grants for FY12 for two feedlot projects. With the importance of livestock in Fillmore County, filter strips are an important tool to minimize livestock damage to streambanks and reduce fecal coliform bacteria loading into nearby waters. Managed grazing in these areas can limit livestock access and help maintain permanent grass cover on streambanks. Continuous CRP cannot be grazed but can be used where manure is applied on fields adjacent to streams and sinkholes to reduce the risk of bacteria entering streams or ground water.. Compliance with the 50-foot buffer requirement in the Shoreland Ordinance will be emphasized. Technical assistance for development and implementation of nutrient management plans and grazing management plans also help achieve these goals. Assistance will also be provided as needed on small community wastewater projects implemented in the county by the SE MN Wastewater Initiative.

Nitrates in groundwater: The SWCD provides state cost-share funds for sealing wells that meet the guidelines set by the SWCD Board at 50% cost-share not to exceed \$1,000. Technical assistance is available for nutrient management plans which help producers apply nutrients to cropland more efficiently improving the likelihood for reducing input costs. Nitrates are also reduced by addressing pollution from high priority feedlots and malfunctioning septic systems. Nitrate clinics and the Volunteer Nitrate Monitoring Network will educate the public about nitrates in ground water and help to gather information about nitrate levels in drinking water wells. Loans for well replacement will be promoted through the Ag BMP loan program.

Pesticides in streams: Monitoring is being conducted in conjunction with the MDA to identify areas of concern, but adequate data are not available to provide detailed information for mapping purposes. Two MDA pesticide monitoring sites are located in Fillmore County. Assistance will be given to landowners for practices that reduce pesticide runoff into streams, such as filter strips. Education about setback requirements is ongoing.

Turbidity in surface waters: The Root River Turbidity TMDL study (2008-2011) is providing more comprehensive data on turbidity and sediment loading in the impaired segments of the river and its

tributaries. Preliminary sediment fingerprinting data indicate that a significant percentage of the sediments carried in the streams is from upland erosion, contrary to the hypothesis at the beginning of the study. The next step is to identify areas for implementing BMPs to begin seeing reductions in sediment in the river. The final report and implementation plan have been completed and are under review by MPCA and the EPA. Work has begun on the Root River Comprehensive Strategy to address all impairments in the watershed, including newly listed nitrate impairments, under one comprehensive plan. The SWCD will play an important role in developing civic engagement activities and in continued monitoring. Civic engagement activities are beginning in Rush-Pine and Watson Creek watersheds. Studies to better understand nitrate transport in karst are also being done by subcontractors for this project.

Special Projects

The Fillmore SWCD has several ongoing special projects that will be implemented over the next several years. The Fillmore SWCD continues to provide assistance to create farmstead windbreaks for future energy conservation and offers state cost-share funds to provide 75% not to exceed established cost-share rates on file at the SWCD.

The Cover Crop program will continue with funding from The Nature Conservancy (TNC). Work continues with local cooperatives and the MDA to pursue funding to retrofit airflow sprayers to seed winter rye into standing soybeans. The modification can also be used for split nitrogen applications, which can reduce application rates and the risk of nitrogen loss into water resources.

TNC is also providing funding for a targeted effort in several watersheds in the western part of Fillmore County to increase water storage and reduce overland flow. These watersheds are a priority to TNC because of the potential in these areas to restore the hydrology within the Root River watershed. Restoring hydrology, particularly in the headwaters, also reduces sediment and nutrient delivery to receiving waters. A list of landowners with land in the riparian corridor has been developed, and they are being surveyed about their conservation needs. The project is funded through June 30, 2012.

The MDA Root River Field to Stream Partnership will continue in 2012 to evaluate the effectiveness of BMPs. Two part-time staff will be funded in the SWCD to work with farmers on the adoption of BMPs and measuring their effectiveness and to conduct water quality monitoring. Cost share funds will be available to the producers in the watersheds for implementation of practices. The SWCD also administers subcontracts for the project.

A summer intern position has been applied for through the Conservation Corps of Minnesota. If the position is not available, the SWCD will fund the position. The intern will gain experience with implementing conservation practices, doing outreach and education on storm water management, and assisting with water quality monitoring.

The Fillmore SWCD will be an active participant in the Mississippi River Basin Healthy Watersheds Initiative for the Root River which will provide additional funding through NRCS for practices funded through the EQIP, WHIP and Conservation Innovations Grant programs. SWCD staff will be promoting the practices eligible for these funds and assisting landowners with their implementation. BWSR TA funding will help to pay for some staff time for this effort. The Conservation Planning Specialist hired with funding from NRCS and The Nature Conservancy will continue to update conservation plans with a focus on the MRBI watersheds. A Conservation Innovations Grant awarded

to the MDA is establishing more edge of field monitoring sites in the Root River watershed. The SWCD is partnering with MDA to set up and maintain the sites.

Fillmore SWCD has participated in the nutrient efficiency coalition created with the help of the Conservation Technology Information Center (CTIC). A conference is being organized for February 15, 2012 in Morton for ag consultants, cooperatives and other ag professionals about nutrient efficiency and management. Information from the Root River projects will be part of the conference program. Funding from MDA research funds will be applied for to continue the manure pack study begun in 2011 using a CTIC grant.

In 2004, the Fillmore SWCD began assisting the county on an “as needed” basis with conducting on-site inspections of new and upgraded ISTS systems. In addition, the District administers the Ag BMP loan program to assist homeowners with upgrading systems that are failing. Ag BMP loans are also available to landowners to assist in implementation of conservation practices and BMPs, such as feedlot fixes and no till planters and to replace wells that are contaminated or do not meet setback requirements from pollution sources.

For the past year, the SWCD has participated in the Southeast Minnesota Landscape Committee, which reports back to the Minnesota Forest Resources Council. From this relationship, the SWCD has entered into an agreement with the MN DNR to administer and coordinate the development of a Root River Landscape Plan with a consultant, the Root River Project Steering Team, and the Root River Landscape Stewardship Planning/Coordination Committee. The plan is scheduled for completion by the end of 2012. The consultant will provide additional technical assistance to a small group of landowners to utilize the plan.

The SWCD Forestry Committee, which became active in 2011, will continue to develop ways to assist and inform landowners about managing forest resources. Information and educational resources for the Lost Creek Hiking Trail will continue to be updated to supplement the brochure and educational signage done in 2011, as well as conducting another successful landowner field day. Funding sources will be investigated for installing informational signs about garlic mustard and boot scrapers to reduce the risk of spreading it.