

Fillmore Soil and Water Conservation District



2011 ANNUAL PLAN

DRAFT 2

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.

I. 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.
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, workshops, or producer meetings.
7. Provide information regarding access to soil stewardship materials to churches. Include rental agreement information with notices to churches about the stewardship materials.
8. Promote and target continuous CRP through the coordinated Buffer Strip Initiative for maximum soil and water benefits with emphasis on DNR protected shore land areas.
9. 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.
10. More direct contact with Lanesboro and Chatfield schools, to encourage participation in 6th grade field day and other events or activities.
11. Hold an annual awards event.
12. Continue as the lead agency for the Root River Turbidity TMDL final report and begin work 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.

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.

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. Complete workload derived from the August 2007 flooding events.
3. 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.
4. Provide assistance to NRCS in the implementation of the Federal Programs.
5. Administer the Ag BMP low interest loan program to provide funds for conservation practice implementation and the purchase of eligible equipment.
6. Provide technical and financial support and administration of programs for planting cover crops.
7. Set up a designated District account for setting aside acres to allow for summer construction of conservation practices.

GOAL 2: Maintain and improve surface and groundwater quality to meet the needs of the public. Total Estimated Staff Days needed: 368

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 County with subsurface sewage treatment systems (SSTS) inspections by maintaining the training of existing staff.
3. Assist public water suppliers with identifying potential contaminant sources in wellhead protection areas as requested.
4. Support dye trace studies and other ground water research in the Root River watershed.
5. Promote sinkhole and shoreline site protection by use of buffers.
6. Assist with the administration of the Decorah Shale Ordinance.
7. Facilitate meetings on ground and surface water protection to targeted audience, such as community education classes.
8. Provide education in cooperation with Extension and MDA to producers regarding nutrient management in areas with karst and other sensitive features.

Objective 3

Protect surface and groundwater from contamination from agricultural and non-agricultural use of fertilizers and pesticides. Estimated Staff Days: 24

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.
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. Expand the citizen MPCA Citizen Stream Monitoring Program and publicize it in the newsletter and local newspapers.
4. Cooperate with MPCA and MDA in establishing long-term surface water monitoring sites and parameters.

5. Hire a summer intern to develop an urban storm water demonstration in at least one town in cooperation with a volunteer group.
6. Provide information on the SWCD website regarding a waste pesticide disposal options for county residents.
7. Continue to participate in the Mississippi River Basin Healthy Watersheds Initiative for the Root River.

Objective 4

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

1. Provide training 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 the testing of wells 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.
4. Assist with regional 319 grants for wastewater and the Greenleafon 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 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.
2. Work with the county to develop fuel storage ordinances and set-backs.
3. 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, including buckthorn control.
5. Promote and provide technical assistance to landowners for the CRP program through direct mailings, news articles and radio ads.
6. Promote re-vegetation of native species through programs 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.
11. Continue writing and approving conservation plans for Rural Preserve Program applicants, and develop a fee schedule with incentives for implementing enhancement practices.
12. 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.

Objective 2

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

1. Administer the Minnesota Wetland Conservation Act and promote Wetland Preservation Areas.
2. Cooperate with conservation groups and other government agencies to promote the use of rotational grazing in shoreland areas.
3. 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, plus more frequent (quarterly or semi-annual) informal reviews 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. Begin working with a publisher to publish a new plat book for the county.
12. Participate on the steering committee for the National Trout Learning Center in Preston,

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, DNR prescribed burning training, RC&D grazing workshops)
2. Coordinate efforts with the Lost Creek Trail committee and others to include interpretive signs for practices that demonstrate good management of forest, prairie and cropland along the trail.
3. Develop hunter education materials for the website and the county fair to reduce problems with damage to trees and property to encourage better relations between hunters and landowners. Work with the 4-H Shooting Sports Team, gun safety training, the Whitetail Association and others to develop and utilize the materials.
4. Conduct joint meeting with County Commissioners annually to review District programs.
5. Hold 3-6 meetings with the Local Water Management technical committee and Citizens' Advisory Committee.
6. Update and maintain the SWCD web page.
7. Publish a newspaper insert once a year and at least two online newsletters in 2011.
8. Publish monthly newspaper columns submitted by a staff person assigned to each month.
9. Conduct radio ads and public service announcements to promote the goals of the SWCD.
10. Carry out the DNR Well Monitoring Program.
11. Conduct the County Rain Gauge Monitoring Program.
12. Continue to hold a 6th grade field day with a goal of all schools participating. Invite home schooled students to the event.
13. Support and assist with the Area VII Envirothon.
14. 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.
15. Provide scholarships or other incentives to attend local educational events that are consistent with the SWCD's mission.
16. Provide information on natural resources conservation and renewable energy at the county fair as well as countywide throughout the year.

17. Select and promote a county Outstanding Conservationist (from District 3 in 2011) to be recognized at the annual MASWCD Convention, as well as other possible award candidates in other categories.
18. Promote District Accomplishments.
19. Participate in the FFA and 4H organizations to promote soil conservation and to provide information about careers, forestry, water testing, etc.
20. 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.
21. Contact schools and home schooled students regarding participation in the MASWCD poster, mural and video contests.
22. Consider hiring a summer intern to assist with existing SWCD programs and expand outreach and education on forest management and urban storm water BMPs.
23. Schedule a canoe trip for board and staff on the Root River to view areas of special interest for the turbidity TMDL and other studies.
24. Collaborate with Eagle Bluff on an educational event.
25. The Forestry Committee will investigate 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 will help to identify areas for prioritization.

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 by the Board of Water and Soil Resources and 319 grants. The SWCD continues to 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 are aimed at reducing fecal coliform bacteria entering the surface and ground waters of Fillmore County. The SWCD has been awarded over \$728,000 in Clean Water Fund grants for FY10 and FY11 for ten feedlot projects with ten of those projects anticipated to be completed in 2011. 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 the water body. Continuous CRP will be promoted to encourage installation of filter strips along streams and around sinkholes. 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 will also help to reduce the transport of manure and bacteria to rivers and streams. District staff will continue to assist the county with inspecting new septic system installations.

Nitrates in groundwater: The SWCD provides state cost-share funds for sealing wells that meet the guidelines set by the SWCD Board with 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 addressed by reducing 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 is not available to provide detailed information for mapping purposes. Some TMDL monitoring stations are co-located with MDA pesticide monitoring sites. Assistance will be given to landowners for practices that address pesticides running off into streams, such as filter strips.

Turbidity in surface waters: The Root River Turbidity TMDL study (2008-2011) will provide more comprehensive data on turbidity and sediment loading in the impaired segments of the river and its tributaries. Watershed modeling and sediment fingerprinting will help to identify areas for implementing BMPs and to predict reductions in sediment in the river. The final report and implementation plan are to be completed in 2011. Work will begin 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.

Special Projects

The Fillmore SWCD has several ongoing special projects that will continue to be implemented over the next several years. All flood relief funds were encumbered by December 31, 2010, and it is anticipated that all projects will be completed that are utilizing the Flood Relief Cost Share Grants to fix damages from the 2007 flood. There will be follow up on sealing about 120 private sandpoint wells in the City of Rushford found after the flood.

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 in 2011 if funding can be obtained from additional sources, such as the RC&D and The Nature Conservancy. Work has begun with local cooperatives and the MDA to pursue funding to retrofit airflow sprayers to seed winter rye into standing soybeans.

The MDA Root River Small Watershed Project will continue in 2011 to evaluate the effectiveness of BMPs. Two part-time staff will be funded in the SWCD. One will work with farmers on the adoption of BMPs and measuring their effectiveness. The other will conduct water quality monitoring to evaluate how well the practices reduce pollutant transport. Cost share funds will be available to the producers in the watersheds for implementation of practices.

A summer internship 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 the EQIP, CSP, WHIP, WREP, 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.

Fillmore SWCD is a member of the steering committee for a nutrient efficiency coalition created with the help of the Conservation Technology Information Center funded by an EPA hypoxia grant. A conference is being organized for February 15, 2011 in Rochester for ag consultants and cooperatives about nutrient efficiency and management. A \$5000 grant from the coalition will be used to study the nutrient availability in solid pack manure used in combination with additional nitrogen and comparing areas where the manure is either incorporated or broadcast only.

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. AgBMP loans are also available to landowners to assist in implementation of conservation practices and BMPs, such as feedlot fixes and no till planters.