Steele County Soil & Water Conservation District

ANNUAL PLAN OF WORK

2014

2014 ANNUAL PLAN OF WORK APPROVED AT STEELE CO. SWCD BOARD MEETING ON FEB. 12, 2014

District Board of Supervisors

The Board meets the second Wednesday of each month at 7:00 p.m. at the Ag Service Center, 235 Cedardale Drive SE Owatonna, MN.

DISTRICT GOVERNING BOARD AREA OF REPRESENTATION

Dan Hansen, Aurora, Lemond and Somerset Townships
Mark Ihlenfeld, Clinton Falls, Deerfield, Medford, and Merton Townships
James Klecker, Berlin, Blooming Prairie and Summit Townships
David Melby, Havana, Meriden and Owatonna Townships
Kyle Wolfe, City of Owatonna

STANDING COMMITTEES

Personnel
Budget and Planning
Steele County Planning and Zoning
SE Joint Powers Board
Hiawatha Resource Conservation and Development
Cannon River Watershed Partnership

DISTRICT STAFF

Daniel Arndt District Manager, Technician
Adrienne Justman District Administrative Secretary
Eric Gulbransen District Resource Conservationist

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Steele County SWCD – Website – www.steeleswcd.org

NATURAL RESOURCES CONSERVATION SERVICE PERSONNEL

NRCS STAFF

Noel Frank District Conservationist
James Smith Soil Conservation Technician

OTHERS ASSISTING STEELE CO. SWCD

Chad Billat, Ducks Unlimited Associate WRP Specialist

STEELE COUNTY COMMISSIONERS

James "Corky" Ebeling
Nina Huntington
Doug Johnson
Bruce Kubicek
Mark Schultz

STEELE COUNTY ENVIRONMENTAL SERVICES

Scott Golberg, Director

STEELE COUNTY DITCH INSPECTOR

Dennis Grunwald

STEELE COUNTY FSA AGENCY AND STAFF

FARM SERVICES AGENCY PERSONNEL:

David Charles County Executive Director
Ken Prestegard, Committee Member
Lonny Klemmenson, Committee Member
Sharon Katzung, Committee Member

STEELE COUNTY EXTENSION SERVICE

Vacant, Extension Educator

Introduction:

The Steele County Soil and Water Conservation District (SWCD) through a resolution, has adopted the Steele County Comprehensive Water Management Plan (CLWMP) as our Long Range Plan. The SWCD 2014 Annual Plan of Work is developed from the Long Range Plan. The purpose of this plan is to isolate specific action items taken from the CLWMP that relate to the goals of the SWCD. Other action items that address the goals of the SWCD but are not specifically outlined in the CLWMP are also included in this plan.

MISSION STATEMENT:

The Prime Responsibility of the District is to coordinate assistance on private lands to control erosion, prevent flooding, enhance wildlife, develop recreation, build the economic base, and to manage our soil and water resources.

HIGH PRIORITY SOIL AND WATER RESOURCE CONCERNS

1. Soil, Fertilizers, and Pesticides from Agricultural Fields Flowing into Surface Waters:

Agriculture is essential to the economic vitality of Steele County. Eighty-five percent of the land area in Steele County (or approximately 235,000 acres) is used for growing crops. The practice of growing row crops such as corn and soybeans leaves the land vulnerable to water and wind and soil erosion for seven to eight months out of the year. As a result, our streams and ditches see high sediment loads.

Soil erosion and sedimentation are the greatest nonpoint source and surface water pollution problems in the County that affect both water quality and quantity in lakes, streams, and ditches. Soil erosion is the primary mechanism for the transport of sediment, nutrients and pesticides from Ag land, urban areas, and construction sites to the drainage ditches and streams in Steele County.

The 1972 Federal Clean Water Act requires states to adopt water quality standards to protect the nation's waters. The Total Maximum daily Load (TDML) process is currently being used to bring impaired waters into compliance with water quality standards. One of the steps in the TMDL process is to develop a TMDL study to identify the maximum amount of any given pollutant that a water body can handle and still meet water quality standards. Many of Minnesota's water resources currently meet their designated uses because of pollution problems from a combination of point and nonpoint sources.

Steele County has 376 miles of streams that includes 224 miles of public and private open drainage ditches. The Draft 2010 List of Impaired Waters in the County for turbidity, an indicator of soil erosion and sedimentation, is provided in the table below:

Reach	Assessment Unit	Affected Use
Rush Creek: Headwaters To Straight River	07040002-505	Aquatic Life
Straight River: CD #25 To Turtle Creek	07040002-517	Aquatic Life
Straight River: Turtle Creek To Owatonna Dam	07040002-535	Aquatic Life
Straight River: Maple Creek To Crane Creek 8	07040002-503	Aquatic Life
Straight River: Crane Creek To Rush Creek	07040002-536	Aquatic Life
Zumbro River, Middle Fork: Headwater to North Branch	07040004-522	Aquatic Life

The Steele County Soil Survey indicates that 79,000 acres in the County have a potential toward slight to moderate water erosion and that 32,000 acres have a potential of moderate to severe erosion by water. Wind erosion is most severe in the 26,000 acres of sandy and peat soils in the county.

Most agricultural producers use pesticides and fertilizers to protect crops and increase yields. Because some pesticides and fertilizers can leach through the soil to groundwater, or be lost from fields in surface water runoff, it is critical that Ag BMP's be implemented to protect water quality. In addition, a reduction in the amount of fertilizers and pesticides used will ultimately reduce the level of contamination in surface and groundwater.

Conservation practices, source reduction of pollutants, and other control measures are needed throughout the county to protect water quality in both urban and rural areas where much of the original cover and vegetation has been replaced with cropland, roads, buildings, and other development.

2. Urban Stormwater Runoff:

When rain falls on land and impervious surfaces in urban areas such as paved streets, parking lots, and building rooftops, it can wash away soil and sediment. Stormwater runoff can change both water quality and quantity affecting our water resources physically, chemically, and biologically.

Stormwater from impervious surfaces and sediment from construction sites and other areas without vegetative cover can greatly increase floodwater potential and deliver large amounts of sediment to receiving waters.

Mankato State University completed a stormwater drainage contaminant study of Owatonna and Medford in 1993. The purpose of this study was to determine the contaminants associated with stormwater drainage in these two communities and their potential direct and indirect impact on groundwater and surface water. The results of this study showed that a large number of organic pollutants along with heavy metals, sediment, and nutrients are being transported with urban stormwater runoff and deposited into surface waters.

Nonpoint pollution sources that are associated with urban stormwater runoff include:

- Vehicular traffic
- Lawn and garden maintenance
- Municipal maintenance activities
- Industrial and commercial activities
- Improper disposal of household hazardous wastes
- Pet and wildlife feces and litter
- Construction activity
- Runoff from residential driveways and parking areas

As impervious surfaces increase, more water flows off of urban surfaces and is delivered faster to receiving waters. The increased activity on these surfaces means that more pollution material is available, as well. Minimizing the mobilization of this material and its impact is the goal of good runoff management practices.

3. Animal Feedlot Manure Runoff into Surface Waters:

The Lower Mississippi River Basin Fecal Coliform TMDL Study identified surface applied manure and open feedlot runoff as contributors of fecal coliform bacteria pollution to surface waters. The Clean Water Act Section 303 (d) List of Impaired Waters includes seven stream reaches in Steele County (within the Cannon River Watershed) that are listed as impaired for fecal coliform bacteria.

According to the Steele County Feedlot Inventory there were 392 animal feedlots in Steele County in 2011. Manure that is generated from animal feedlots is typically stored or contained near the feedlot until it can be surface applied on land.

There are about seven open feedlots in the county where animal congregate in an outside area and vegetation cannot be maintained due to their presence. Manure runoff from open feedlots can reach streams, ditches, and lakes through conveyances such as surface tile intakes, road ditches, and overland runoff during storm events.

Steele County acknowledges that the rules governing pastures were changed in 2010 to allow pasturing of animals on land other then permanent grass areas. The county will monitor this situation to see if it will have a potential significant effect on water quality.

Confined animal feedlot manure can pollute surface waters during storm water runoff events after the manure has been land applied.

Implementing manure management BMP's will reduce the impact that animal feedlot manure can have on surface water quality.

The purpose of the Annual Plan is to provide guidance for the Districts conservation program operations during the one year period of January 1, 2014 through December 31, 2014.

Objectives:

I. Maintain and improve surface and ground water quality through promotion and application of conservation practices which reduce soil erosion by water to tolerable levels on all land in the county.

Actions Planned:

A. Reduce erosion by water, by installing 1,000 feet of terraces, 5 water and sediment control basins and 10 acres of grassed waterways.

B. Control sedimentation to streams, ditches and lakes by installing 1 gully control structure and 2 side inlet drainage ditch structures.

C. Will promote the application of 10 acres of filter strips adjacent to drainage ditches, streams and wetlands.

D. Will participate in the Cedar River Watershed District Phase I Implementation Plan.

E. Assist with the implementation of the Steele County Comprehensive Water Management Plan.

F. Participate in the Cannon River Watershed Partnership.

G. Continue the Observation Well Program in cooperation with the Department of Natural Resources.

H. Continue coordination of the Precipitation Gauging Network by submitting monthly reports and soliciting new reporters as needed.

I. Will participate in the State Revolving Loan Fund Program, and the SE Technical Joint Powers Board.

1. Loan Applications for best management practices will be reviewed and certified.

2. Facilitate JPB engineering assistance on projects that exceed local technical staff job approval authority.

J. Assist the County Environmental Services Department with development of an erosion ordinance.

K. Implement the following Board of Water and Soil Resources Grants.

1. Complete and close out the 2010 Cooperative Weed Management Grant.
2. Implement and close out the Services Grant by June 30.
3. Submit the 2016-2017 Biennial Budget Request by May 2nd.
4. Apply for Clean Water Funds in August.

L. Assist landowners with all aspects of the current Federal Farm Program.

1. Promote the Continuous Conservation Reserve.

M. Promote the Environmental Quality Incentive Program focusing on high priority practices including: grassed waterways, water and sediment basins, terraces, no-till, strip-till, cover crops, animal waste control systems, farmstead windbreaks, and other high priority conservation practices.

N. Promote the Reinvest in Minnesota - Wetland Reserve Program focusing on marginal wet farmland.

1. Will assist ten landowners with controlled burns on RIM easements utilizing the Minnesota Conservation Corp Clean Water Grant.

O. Administer the Wetland Conservation Act in cooperation with the County Environmental Services Department.

1. The SWCD will act as the clearinghouse for all wetland related activities.

2. Make decisions for no-loss determinations, exemptions, and wetland boundary and typing determinations.

3. Prepare restoration orders resulting from enforcement actions.

4. Serve on Technical Evaluation Panel, and complete WCA Annual Reporting.

P. Continue to sponsor the Straight River Marsh Wetland Restoration Project.

1. Promote enrollment of key parcels within the wetland basin.
2. Assist landowners with maintenance of existing easements.
   a. Will offer a SWCD Spraying Program to address invasive species growing on easement lands.

Q. Will make available to cooperators a no-till drill for seeding CRP, RIM, and WRP projects.

II. <u>Reduce wind erosion to tolerable levels on all land.</u>

Actions Planned:

A. Will sponsor a Tree and Shrub Program, making available conservation grade planting stock for use in windbreaks, wildlife habitat, and erosion control plantings.

1. Consider sponsoring a Tree Day Open House.

B. Install 5 acres of farmstead and field windbreaks throughout the county.

1. Will promote the CRP Continuous Sign-up for windbreaks on cropland and the EQIP Program for windbreaks on non-cropland areas.

C. Will promote reduced tillage practices with County landowners.

III. Inform Residents In Urban Areas Of The County About The Detrimental Effects Of Urban Storm water Runoff.

Actions Planned:

A. Assist the City of Owatonna's Storm Water Manager with storm water runoff problems in the Maple Creek watershed.

IV. To adequately drain wet cropland for efficient crop production and successful operation of all conservation practices.

Actions Planned:

A. Assist landowners with the development of organized drainage groups including watershed – wet acre, and benefit division. Encourage the groups to establish legal recorded agreements.

V. Reduce Animal Waste Runoff Into Surface Waters.

Actions Planned:

A. Assist landowners with manure storage and management plans to ensure that surface water and groundwater will not be impacted by animal waste.

1. Will utilize the expertise of the SEJPB Nutrient Management Specialist in the development of nutrient management plans with County landowners.

VI. To inform all people of the County about soil and water resource programs.

Actions Planned:

A. Will maintain the SWCD website including monthly updates.
B. Will publish a Conservation Newsletter. The newsletter will be distributed to all landowners, cooperating agencies and news media.
C. Sponsor soil and water conservation awareness programs for students including:

1. Sponsor the Steele County Outstanding 4-H Conservation Trop
2. Will promote the Southeast Minnesota Envirothon in schools throughout Steele County.
3. Will make presentations about Conservation Programs to schools and groups as requested.
4. Will sponsor a tree planting days for elementary students.

D. Recognize an Outstanding Conservation Farmer, Wildlife Conservationist and Outstanding Windbreak.

1. Will erect Outstanding Conservation Farmer signs at the farm yards of past and current Outstanding Conservation Farmers.
2. Maintain contact with legislators and inform them of soil and water conservation needs and priorities.
3. Will attend the MASWCD Legislative Day at the Capitol.

E. Promote Soil and Water Conservation by:

1. Submitting monthly news articles to the county news papers.
2. Sponsoring a booth in the Izaak Walton Building at the County Fair.
3. Observing Soil Stewardship Week by furnishing material to county churches and schools.

F. Publishing a 2015 Conservation Calendar in December.

G. Promote the use of the Land Use Model in schools and other educational events.

H. Sponsor a Conservation Bus Tour focusing on wetland restorations in April.

VII. Improve wildlife habitat so that adequate wildlife populations exist for recreational enjoyment.

Actions Planned:

A. Inform landowners about the wildlife programs available through the Department of Natural Resources, MN Pheasants Group, Steele County Spurs Wild Turkey Federation Group, and the US Fish and Wildlife Service.

1. Will implement the USFWS partners grant for improved wildlife habitat.

B. Promote planting native grasses, trees and food plots on CRP, WRP, and RIM Reserve and other land to improve the wildlife value of those lands.

VIII. Cooperate with other agencies to promote soil and water conservation awareness, and to research solutions for related resource problems.

Actions Planned:

A. Work closely with the County Commissioners, County Highway Department, and Environmental Health and Zoning Department to solve local resource problems.

B. Work with the County Extension Office to promote information and education about soil and water conservation.

C. Will participate in the Minnesota Conservation Corp apprentice program by mentoring an MCC Apprentice.

D. Participate in the Steele County Zoning Ordinance revision process.

1. Promote protection of prime farmland, natural areas and open space in the county.

E. Promote the use of controlled drainage and consider making an application for a controlled drainage grant.

IX. Increase efficiency of District office operations by utilizing current computer technologies.

Actions Planned:

A. Will incorporate the new LIDAR two foot contour layer into the conservation planning efforts.

X. Cost-Share Program.

Actions Planned:

A. The District will utilize the State Cost-Share funds by assisting landowners with the application of conservation practices on land with High Priority Erosion Problems. "High priority erosion problems" means areas where erosion from wind or water is occurring equal to, or in excess of, 2 x T tons per acre per year or is occurring on any area that exhibits active gully erosion or is identified as high priority in the Comprehensive Local Water Management Plan. In addition, the District will assist landowners with application of conservation practices on land with High Priority Water Quality Problems. "High priority water quality problems" means areas where sediment, nutrients, chemicals, or other pollutants discharge to Department of Natural Resources designated protected waters or to any high priority waters as identified in a comprehensive local water plan or the conservation district's comprehensive plan, or discharge to a sinkhole or groundwater. The pollutant delivery rate to the water source is in amounts that will impair the quality or usefulness of the water resource.