

Steele County

Local Water Management Plan 2007 - 2016

Amended 2009

Amended 2011

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Frequently Used Acronyms and Abbreviations

AG	Agricultural
BMP	Best Management Practice
BWSR	Minnesota Board of Soil & Water Resources
CRWP	Cannon River Watershed Partnership
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
DNR	Minnesota Department of Natural Resources
EQIP	Environmental Quality Incentive Program
LWM	Local Water Management
MDH	Minnesota Department of Health
NPDES	National Pollutant Discharge Elimination System
NRBG	Natural Resources Block Grant
NRCS	Natural Resource Conservation Service
MPCA	Minnesota Pollution Control Agency
Reach	Extends from one significant tributary to another and is typically less than 20 miles in length
RIM	Reinvest in Minnesota
SWCD	Steele County Soil & Water Conservation District
TMDL	Total Maximum Daily Load
WCA	Wetland Conservation Act Administration
WRP	Wetland Reserve Program
WREP	Wetland Reserve Enhancement Program

Executive Summary

Steele County is located in southeastern Minnesota approximately 65 miles south of Minneapolis/St. Paul. It is bordered on the north by Rice County, Minnesota; on the east by Dodge County, Minnesota; on the west by Waseca County, Minnesota; and by Freeborn County, Minnesota on the south. It contains 276,480 acres or 432 square miles, which includes four cities and 13 townships. The county seat is the city of Owatonna, which contains the largest population settlement and is located in the north central section of the county at the intersection of two major transportation routes: State Highway 14 and Interstate 35. Two of the smaller cities, Blooming Prairie and Ellendale serve as trade centers for the rural population, while the city of Medford contains a large retail center along Interstate 35 that draws transient visitors.

Steele County contains a predominance of rich agricultural land with about 85% of the land area in cropland. In addition, there is a diversity of businesses and industries in the county.

Steele County contains portions of four major watersheds within its boundaries: Cannon River Watershed, LeSueur River Watershed, Zumbro River Watershed, and Cedar River Watershed. Approximately 84% of the land area in Steele County is in the Cannon River watershed, which includes the area drained by the Straight River and its tributaries: Turtle Creek, Maple Creek, Crane Creek, Medford Creek, and Rush Creek. The southeastern corner of the county lies within the Cedar River watershed. The eastern and northeastern edge of Steele County lies within the Zumbro River watershed and the southwestern part of the county lies within the LeSueur River watershed

Steele County officially began the comprehensive water planning process in August, 1987, when the County Board authorized the development of a County

Comprehensive Water Resources Management Plan by resolution. The Steele County Board of Commissioners formally adopted the original water plan on August 14, 1990. The original water plan was updated in the mid-1990's to serve the period from 1997-2006.

Purpose of the 2007-2016 Local Water Management Plan

The purpose of this updated Local Water Management (LWM) Plan for Steele County is:

1. To provide a framework and schedule for implementing activities that address priority water management concerns.
2. To qualify the county for water resource management project funding from federal, state, and other sources.

Description of Priority Concerns

Through the Water Plan update process, six priority concerns were identified to focus water management efforts on from 2007 through 2016: Soil Erosion, Fertilizer and Pesticides from Agricultural Fields into Surface Waters, Sewage from Rural Septic Systems into Surface Waters, Urban Stormwater Runoff, Animal Feedlot Manure into Surface Waters, and Clandestine Waste Dumps affecting Drinking Water. The process through which these priority concerns were identified is further detailed in the Priority Concerns Scoping Document contained in Appendix A.

Summary of Goals

Because soil erosion is, in effect, the transport mechanism for fertilizers and pesticides to flow into surface waters, these two priorities will be combined into

one priority in the implementation plan. The following is a summary of goals that have been established for the identified priority concerns:

- 1) **Soil, Fertilizers, and Pesticides from Agricultural Fields Flowing into Surface Waters** – Protect surface waters from sedimentation and ag field pollutant runoff
- 2) **Sewage from Rural Septic Systems into Surface Waters** – Protect surface waters and groundwater from rural wastewater contamination
- 3) **Urban Stormwater Runoff** – Protect surface water and groundwater resources from pollutants in urban stormwater runoff
- 4) **Animal Feedlot Manure into Surface Waters** – Protect surface water resources from open lot runoff and surface applied manure from animal feedlots
- 5) **Clandestine Waste Dumps affecting Drinking Water** – Protect groundwater resources from clandestine dump site pollutants

2009 Amendment – Wetland Preservation Areas Program

During the 2006 water planning process the issues of *Wetland Restoration* and *Loss of Natural Vegetation and Habitat* ranked in the top ten priority concerns. Although the plan did not specifically address these concerns with goals and actions, Steele County has determined that all remaining presettlement wetlands or restored pre-settlement wetlands within Steele County should be designated as high priority wetland preservation areas for the purpose of making the county eligible to participate in the Wetland Preservation Areas (WPA) program. In addition to the requirements of Minnesota Rule 8420, the county will use the following guidelines when administering the WPA program:

1. Eligible wetlands will be greater than five acres in size
2. The wetland buffer area will be a minimum of 50 feet
3. Three priority areas in the county will be the Straight River Marsh area, the proposed Ripley Ditch Watershed area, and the floodplain/riparian wetland areas along the Straight River and Maple Creek

2011 Amendment

The 2011 amendment to the water plan represents the required update to the implementation section of the plan (i.e. priority concern objectives and actions) at the mid-term of the 10-year plan. In addition to the update of the implementation section of the plan, the county has identified flooding as a major concern during the final five-year period of the plan. This concern has become a priority as a result of significant flood events that have occurred in the city of Owatonna and other parts of the county during 2007 and 2010. The focus of flood assessment and mitigation efforts will be in the Maple Creek watershed and other parts of the Straight River watershed.

Consistency of the Plan with Other Pertinent Local, State & Regional Plans

In the process of the LWM plan update, Steele County examined the plans and official controls of local government units, contiguous counties, and State Agencies to ensure consistency with other water resource management efforts. The Steele County LWM plan is consistent with other local, state, and regional plans and controls. Implementation actions include working with other local and state agencies and programs to accomplish water resource protection and improvement. In addition to working with other governmental units, the county will continue to collaborate with the Cannon River Watershed Partnership and other organizations to provide effective and efficient water resource management.

Recommended Amendments to Other Plans

Steele County does not see the need for any amendment to other plans and official controls.

STEELE COUNTY PRIORITY CONCERNS

Assessments and Implementation Plan

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 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 (TMDL) 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 cannot 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:

<u>Reach</u>	<u>Assessment Unit ID</u>	<u>Affected Use</u>
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	07040002-503	Aquatic Life

<u>Reach</u>	<u>Assessment Unit ID</u>	<u>Affected Use</u>
Straight River: Crane Creek to Rush Creek	07040002-536	Aquatic Life
Zumbro River, Middle Fork: Headwaters 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.

Goal: Protect surface waters from sedimentation and agricultural field pollutant runoff

Objective 1 Develop strategies to minimize soil erosion and sedimentation

Action/Implementation

- A. Work with the SWCD office on the development of a soil erosion ordinance
- B. Work with farmers to implement and enforce the soil erosion ordinance program to reduce erosion to T (tolerable soil loss)

Timeline: 2012-2013 – ordinance development
 2014-2016 – ongoing administration and enforcement

Agency: SWCD, County Planning & Zoning, County Environmental Services

Cost: \$1,000 a year - NRGB Grant

Benefiting Watershed or

Groundwater Unit: All watersheds, but priority given to watersheds that are on the impaired waters list for turbidity.

Action/Implementation

Run scenarios on GSSHA (Gridded Surface Subsurface Hydrologic Analysis) to understand the effectiveness of different BMPs in reducing turbidity and flow in the Straight River watershed and where to apply BMPs to reduce turbidity

Timeline: 2011-2013

Agency: DNR, CRWP, Steele County

Cost: \$10,000 – DNR, NRBG, Other

Benefiting Watershed or

Groundwater Unit: Straight River

Action/Implementation

Implement recommended BMPs from GSSHA modeling and engage and incentivize landowners to implement BMPs in areas identified by GSSHA modeling

Timeline: 2013-2016

Agency: CRWP, Steele County

Cost: \$50,000/year – BWSR, Other

Benefiting Watershed or

Groundwater Unit: Straight River

Action/Implementation

Implement in-channel BMPs to protect streambanks and stabilize grades to prevent streambank erosion and sedimentation

Timeline: 2012-2016
Agency: DNR, City of Owatonna, CRWP, Steele County
Cost: \$20,000 – Clean Water Fund
Benefiting Watershed or Groundwater Unit: Straight River (at Clinton Falls), Maple Creek, Turtle Creek

Action/Implementation

Administer and enforce official controls that require buffers on public waters and public ditches

Timeline: 2012-2016
Agency: Steele County
Cost: In-kind – County Planning & Zoning
Benefiting Watershed or Groundwater Unit: All watersheds

Objective 2 Educate the public on best management practices to control soil erosion

Action/Implementation

Provide education to landowners on best management practices for controlling erosion

Timeline: 2012-2016
Agency: SWCD & NRCS
Cost: Inkind - SWCD
Benefiting Watershed or Groundwater Unit: All watersheds, but priority given to watersheds that are on the impaired waters list for turbidity

Objective 3 Seek funding sources for soil erosion control and filter strip projects

Action/Implementation

Apply for Clean Water Fund grants and other federal and state funding to create new erosion control projects or to enhance existing programs

Timeline: 2007-2016

Agency: SWCD, County Environmental Services, CRWP

Cost: \$50,000-100,000 per year - Clean Water Fund Grant, BWSR funding, Other

Benefiting
Watershed or

Groundwater Unit: All watersheds, but priority given to watersheds that are on the impaired waters list for turbidity

Objective 4: Promote Ag BMP's for pesticide and fertilizer use and conservation drainage practices

Action/Implementation

Promote Best Management Practices for pesticide and fertilizer use under MDA and EQIP guidelines

Timeline: 2009-2016

Agency: County Extension Office, NRCS, SWCD

Cost: Inkind

Benefiting
Watershed or

Groundwater Unit: All

Action/Implementation

Develop and implement a BMP training program for dealers, crop consultants, agronomists, and pesticide users

Timeline: 2010-2016

Agency: County and State Extension Office

Cost: \$10,000 per year

Benefiting
Watershed or
Groundwater Unit: All

Action/Implementation

Encourage the use of conservation drainage practices and designs during repairs and improvements of existing drainage systems.

Timeline: 2012-2016

Agency: County Engineer, SWCD

Cost: In-kind

Benefiting
Watershed or
Groundwater Unit: All

Objective 5: Participate in the farm program policymaking process

Action/Implementation

Work with federal legislators on developing environmentally and economically sustainable farm program policies

Timeline: 2007-2016

Agency: SWCD, NRCS, County Environmental Services, CRWP

Cost: In-kind

Benefiting
Watershed or
Groundwater Unit: All

2. Sewage from Rural Septic Systems into Surface Waters

The Lower Mississippi River Basin Fecal Coliform TMDL study identified septic systems as a major contributor of fecal coliform bacteria pollution to surface water. The Clean Water Act Section 303 (d) List of Impaired Waters contains the following stream reaches in Steele County for **fecal coliform bacteria** (all of these reaches are in the Cannon River Watershed):

<u>Reach</u>	<u>Assessment Unit ID</u>	<u>Affected Use</u>
Rush Creek: Headwaters To Straight River	07040002-505	Aquatic recreation
Straight River: CD #25 To Turtle Creek	07040002-517	Aquatic recreation
Turtle Creek: Headwaters To Straight River	07040002-518	Aquatic recreation
Maple Creek: Headwaters To Straight River	07040002-519	Aquatic recreation
Straight River: Turtle Creek To Owatonna Dam	07040002-535	Aquatic recreation
Crane Creek: Headwaters To Straight River	07040002-516	Aquatic recreation
Straight River: Maple Creek To Crane Creek	07040002-503	Aquatic recreation

According to 2010 estimates, Steele County has approximately 3014 rural residences that are served by some type of a subsurface soil treatment system (SSTS) for wastewater; it is estimated that 30% (904) of the existing SSTS's are failing, 15% (452) of the SSTS's are imminent public health threats, and 55% (1658) of the SSTS's are in compliance.

The Steele County Planning and Zoning office issues 50-100 individual sewage treatment systems (ISTS) permits each year for new and replacement septic systems. The county sewage and wastewater treatment ordinance requires failing or nonconforming ISTS to be brought into compliance when a transfer of property occurs or when a living space addition is constructed on an existing home.

Ensuring that sewage from rural septic systems is properly treated will help in the prevention and control of waterborne disease, lake and stream degradation, groundwater contamination, and public health nuisance conditions.

Goal: To protect surface and ground water resources from rural wastewater contamination

Objective 1 To educate the public on the proper use and maintenance of individual sewage treatment systems

Action/Implementation

Conduct sewage treatment workshops and distribute ISTS information to homeowners

Timeline: 2007-2016

Agency: County Planning & Zoning

Cost: \$1,000 per year - workshops
\$2,000 per year - mailings

Benefiting
Watershed or
Groundwater Unit: All

Objective 2 To eliminate direct discharges of sewage to surface or ground water by identifying and repairing or replacing nonconforming sewage treatment/disposal systems.

Action/Implementation

Identify imminent public health threat (ITPHS) systems by comparing a list of all developed properties with the existing list of sewage treatment system permit records/installations in Steele County.

Timeline: 2011-2013

Agency: County Planning & Zoning

Cost: In-kind

Benefiting
Watershed: All

Action/Implementation

Develop and implement a strategic plan to bring nonconforming ISTS into compliance through publicity, enforcement, and financial incentives

Timeline: 2007 – 2016

Agency: County Planning & Zoning, County Environmental Services

Cost: \$20,000 per year

Benefiting

Watershed or

Groundwater Unit: All watersheds with priority given to impaired waters for fecal coliform bacteria

Action/Implementation

Provide planning and technical assistance for small communities with inadequate wastewater treatment in the county

Timeline: 2007 – 2016

Agency: County Planning & Zoning, SE MN Water Resources Board, CRWP

Cost: \$20,000 per year - NRBG, 319 Grant

Benefiting

Watershed or

Groundwater Unit: All watersheds with priority given to impaired waters for fecal coliform bacteria

Action/Implementation

Provide financial assistance to homeowners to replace nonconforming systems through the Clean Water Partnership (CWP) loan program, AgBMP loan program, and other funding sources

Timeline: 2007 – 2016

Agency: County Environmental Services, County Planning & Zoning

Cost: \$250,000 per year CWP and AgBMP Loan Programs

Benefiting
Watershed or
Groundwater Unit: All watersheds with priority given to impaired waters for
fecal coliform bacteria

3. 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 polluting material is available, as well. Minimizing the mobilization of this material and its impact is the goal of good runoff management practices.

Goal: To Protect Surface Water Resources from Pollutants in Urban Stormwater Runoff

Objective 1: Develop storm water runoff management and quality standards to use in local ordinances and plans

Action/Implementation

Administer and Enforce the City of Owatonna Stormwater Ordinance that was adopted in 2008

Timeline: 2008-2016

Agency: City of Owatonna

Cost: \$25,000

Benefiting Watershed: Cannon River Watershed

Action/Implementation

Update existing stormwater management standards as needed for development projects in Steele County in an effort to minimize the impact that post development runoff will have on water resources

Timeline: 2012-2016

Agency: County Planning & Zoning, SWCD, and Steele County Engineer

Cost: \$5,000

Benefiting Watershed: All

Objective 2 Administer and enforce stormwater runoff controls during construction activities

Action/Implementation

Require all NPDES plans be implemented as part of local permits for construction sites and other areas without permanent vegetative cover

Timeline: 2008 – 2016

Agency: County Planning & Zoning, Municipalities, MPCA

Cost: \$15,000 per year

Benefiting Watershed: All

Action/Implementation

Inspect sites or require self-certification of stormwater control implementation during and after construction

Timeline: 2008 – 2016

Agency: MPCA, Municipalities, County Planning & Zoning

Cost: \$20,000 per year

Benefiting Watershed: All

Objective 3 Provide public education about stormwater management

Action/Implementation

Implement stormwater education as required for Owatonna under the MS4 permit

Timeline: 2007 – 2016

Agency: City of Owatonna, CRWP, County Environmental Services

Cost: \$5,000 per year - State or Federal sources

Benefiting Watershed: All

Objective 4 Provide water quality treatment and volume control of urban stormwater runoff through the use of stormwater ponds and detention basins.

Action/Implementation

Complete a detailed inventory of all existing stormwater ponds.

Timeline: 2011 – 2016

Agency: City of Owatonna

Cost: \$5,000 per year

Benefiting Watershed: All

Action/Implementation

Maintain and improve all existing stormwater ponds. Retrofit existing ponds for additional stormwater treatment and retention.

Timeline: 2011 – 2016

Agency: City of Owatonna

Cost: \$25,000 per year - Local and State sources

Benefiting Watershed: All

Objective 5 To work towards complying with TMDL waste load allocations for turbidity and bacteria in the Straight River and Maple Creek.

Action/Implementation

Develop educational materials for the public and elected officials about the concerns and importance of TMDL requirements.

Timeline: 2011 – 2016

Agency: City of Owatonna, CRWP

Cost: \$5,000 per year - Local and State sources

Benefiting Watershed: Straight River, Maple Creek

Action/Implementation

Install structural best management practices that encourage detention, infiltration, and volume reduction of stormwater prior to discharge to impaired waters.

Timeline: 2011 – 2016

Agency: City of Owatonna,

Cost: \$50,000 per year - State or Federal sources

Benefiting Watershed: Straight River, Maple Creek

4. 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 (see page 13).

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 animals 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 than 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.

Goal: To Protect Surface Water Resources from Open Lot Runoff and Surface Applied Manure from Animal Feedlots

Objective 1 Address open lot feedlot manure runoff problems

Action/Implementation

Provide technical and financial assistance to open lot owners to make improvements that reduce runoff

Timeline: 2007-2016

Agency: County Planning & Zoning, SWCD, SE MN Water Resources Board

Cost: \$20,000 per year - 319 Grants, Ag BMP Loan Program

Benefiting Watershed: All watersheds with priority given to impaired waters for fecal coliform bacteria

Objective 2 Minimize the impact that surface applied manure from animal feedlots will have on surface water quality

Action/Implementation

Work with local agronomists and agronomy centers to ensure that manure is included in the overall farm nutrient management plan

Timeline: 2007-2016

Agency: County Planning & Zoning, SWCD, County Extension

Cost: \$5,000 per year

Benefiting Watershed: All watersheds

Action/Implementation

Provide information and education about manure management BMP's and modern equipment technology to producers who apply their own feedlot manure

Timeline: 2007-2016

Agency: County Planning & Zoning, SWCD, County Extension

Cost: \$5,000 per year

Benefiting Watershed: All watersheds

Action/Implementation

Provide financial assistance to producers and commercial applicators for manure application equipment and manure storage facilities

Timeline: 2007-2016

Agency: County Environmental Services, SE MN Water Resources Board, CRWP

Cost: \$100,000 per year Ag BMP Loan Program

Benefiting Watershed: All watersheds

5. Clandestine Waste Dumps Affecting Drinking Water

There are approximately 3,000 rural households in Steele County that manage the waste that they generate in a variety of ways. Some rural residents contract with a commercial hauler to collect and haul all of their waste to a permitted landfill. Other rural farm and nonfarm residents choose to burn and/or burying all of their waste onsite or self-haul a portion of the waste to the county landfill. In addition to burning and burying waste onsite or having it hauled to an offsite landfill, some rural residents conduct recycling and composting activities.

Closed landfill records indicate that there are 10 closed township or municipal dump sites located throughout the county. These closed solid waste dumps operated prior to the siting of the county sanitary landfill in 1972.

Most of the current clandestine farm and nonfarm dumps, as well as the closed municipal/township dumps, have been located, designed, and operated without much consideration given for protecting groundwater and surface water resources. The drinking water that is most likely to be impacted by the onsite dumps is the well water serving the farm or nonfarm residence.

Goal: To protect groundwater resources from clandestine waste dump site pollutants

Objective 1 Provide education and safe waste management opportunities to rural residents for waste materials that can impact water resources

Action/Implementation

Continue to educate the public on reasons to recycle used oil and the locations where used oil can be brought for recycling

Timeline: 2007-2016

Agency: County Environmental Services

Cost: \$2,000 per year - county service fee

Benefiting
Watershed or
Groundwater Unit: All

Action/Implementation

Continue to provide a public education program on proper management of household hazardous waste products, promote the use of less hazardous products, and provide a facility and program to accept these waste products from residents

Timeline: 2007-2016

Agency: County Environmental Services

Cost: \$25,000 per year - county service fee, state grant

Benefiting
Watershed or
Groundwater Unit: All

Action/Implementation

Provide a waste pesticide collection program for unwanted/unusable pesticides

Timeline: 2007-2016

Agency: County Environmental Services, Rice County

Cost: \$2,000 per year MDA pesticide tax fund
\$1,000 per year NRBG Grant

Benefiting
Watershed or
Groundwater Unit: All

Objective 2 Support river cleanup projects that remove waste from riparian areas

Action/Implementation

Provide technical and financial assistance for riparian cleanup projects

Timeline: 2012-2016

Agency: County, CRWP

Cost: In-kind, NRBG

Benefiting
Watershed or
Groundwater Unit: All

Action/Implementation

Inventory farm clandestine dump sites to determine compliance with regulations

Timeline: 2009-2016

Agency: County Environmental Services, Township Officials

Cost: In-kind

Benefiting
Watershed or
Groundwater Unit: All

IMPLEMENTATION PROGRAM FOR ONGOING WATER MANAGEMENT ACTIVITIES

Steele County has implemented numerous programs and activities as part of its comprehensive water planning effort since the first plan was adopted in 1990. Some of the water management programs and activities that have been instituted for several years include the feedlot program, shoreland program, septic system program, and Wetland Conservation Act administration. This section of the water plan lists some of the ongoing activities that are planned for the 2007-2016 timeline of this plan.

Administration and Coordination

1. The County Environmental Services Department will provide the overall administration and coordination of the Local Water Plan including annual planning and reporting, staffing, and collaborating with other local, state, and federal agencies, as well as watershed organizations, joint powers boards, businesses and individuals.

Groundwater Monitoring

1. Provide a well water testing program for residents with private wells and maintain a database of test results and well information.
2. Coordinate a monitoring program that includes testing of private wells for an extended list of parameters such as pesticides.

Surface Water Monitoring

1. Maintain a surface water monitoring program to record baseline water quality information and water quality trends data for the Straight River Watershed.
2. Share locally generated water monitoring data with the MPCA and other organizations.
3. Support the MPCA with its Watershed Restoration and Protection (WRAP) program and utilize the data collected to address impairments and protection areas.

Education and Technical Assistance

1. Annually summarize well water test results for the public and state and local agencies.
2. Annually summarize surface water quality test results for the public and state and local agencies.
3. Support the SWCD's long range plan for soil and water conservation practices.

4. Advertise and publicize information related to water and waste management activities and programs, including regulations, services, and technical and financial assistance.
5. Provide technical assistance upon request for information related to existing regulations and incentive programs.
6. Provide updated information on the County's Web Page.
7. Support and encourage enrollment in local, state, and federal programs that protect and improve water quality and resources such as CRP, CREP, RIM, WREP, and WRP.
8. Provide information and education to landowners and contractors about wetland regulations and wetland conservation and preservation programs.
9. Support education efforts to promote Ag BMP's including nutrient management, riparian and tile intake buffers, pesticide application, etc.
10. Support the needs of public water suppliers in their wellhead protection plan programs.
11. Engage the local farm coop's, farm groups, and crop advisors to educate landowners and assist with the implementation of the water plan.

Financial Assistance

1. Provide an opportunity for landowners to obtain an AgBMP low interest loan for water quality protection or improvement projects such as erosion control projects, conservation tillage equipment, manure storage structures, and manure application equipment.
2. Provide an opportunity for landowners to obtain a Clean Water Partnership low interest loan to replace a noncompliant septic system.
3. Provide an abandoned well sealing cost-share program for landowners to help defray the cost to seal abandoned wells.
4. Seek funding for local or watershed-based projects which protect or improve water resources.

Research, Mapping, and Inventorying

1. Utilize aerial photography and computer technology to create accurate inventories and maps that can be used to educate the public, provide technical assistance, and enforce regulations.
2. Initiate and participate in research work related to water resources
3. Develop and implement TMDL projects to identify and address impaired waters in the county.
4. Identify and implement water storage options in the Maple Creek watershed.

Regulation, Ordinances, Planning

1. Regularly update plans and ordinances such as the County Water Plan, Comprehensive Land Use Plan, Solid Waste Management Plan, Zoning Ordinance,

- Subdivision Ordinance, Feedlot Ordinance, Solid Waste Ordinance, and Sewage and Wastewater Treatment Ordinance.
2. Administer and enforce the county zoning ordinance.
 3. Administer and enforce the county feedlot ordinance.
 4. Administer and enforce the county shoreland and floodplain regulations.
 5. Administer and enforce the county solid waste ordinance.
 6. Administer and enforce the county sewage and wastewater ordinance.
 7. Administer the state Wetland Conservation Act rules.

APPENDIX A

STEELE COUNTY WATER MANAGEMENT PLAN UPDATE 2007 - 2016

PRIORITY CONCERNS SCOPING DOCUMENT, MAY 2006

Introduction

Steele County is located in Southeast Minnesota approximately 65 miles south of Minneapolis/St. Paul. The county has a land area of 432 square miles or approximately 276,480 acres, which includes four cities and 13 townships. The county seat is the City of Owatonna, which contains the largest population settlement. The interpolated population of the county in the year 2006 is 34,567. The projected population in the year 2015 is 37,580. The predominant land-use in the county is agriculture with about 85% of the total land area cultivated.

Local Water Management Plan

The County of Steele is the local government unit responsible for the Comprehensive Local Water Management Plan authorized by MN Statute, Section 103B. The County's Environmental Services Department is responsible for the administration of the Water Management Plan. The County's original Water Management Plan was adopted in 1990. The Plan was updated in 1997 and will expire at the end of 2006.

List of Priority Concerns

1. Soil erosion carrying pollutants into surface waters.
2. Sewage from rural septic systems that drain to field tile, ditches, streams, or rivers.
3. Chemicals from urban streets and storm sewers flowing into rivers and streams.
4. Fertilizers and pesticides from agricultural fields flowing into rivers and streams.
5. Land applied manure and manure runoff from animal feedlots flowing into rivers and streams.
6. Chemicals from buried waste and open dumps on private land seeping into drinking water.

Priority Concern Identification

The Water Planning Advisory Committee gathered input from the following:

1. Written questionnaire sent by mail to local and state governments returned by November 1, 2005.

2. Written questionnaire sent by mail to special interest groups returned by November 30, 2005
3. Written questionnaire sent by mail to 15% of the county's households and businesses returned by November 15, 2005.
4. Public input meeting held at the County Administration Center on March 2, 2006.

Attached are summaries of survey responses and the minutes from the public input meeting.

Priority Concern Selection

The Water Planning Advisory Committee identified water-related concerns based on known scientific data about the county's resources as well as from the information received from the surveys and the public meeting. Most of Steele County's priority concerns were the same issues identified by local, state, and regional agencies.

Priority Concerns not Addressed by the Plan

Due to limited staff resources and water planning funds, the other concerns that were identified in the planning process will not be addressed in this plan update. Some of the other concerns that ranked below the six priority concerns include:

1. Fertilizers and pesticides from urban lawns flowing into rivers and streams
2. Surface pollutants going down old wells into drinking water
3. Fertilizers and pesticides from agricultural fields seeping into drinking water
4. Need more enforcement of current regulations that protect our water
5. Inadequate municipal wastewater treatment systems
6. Loss of natural vegetation and habitat