

COMPREHENSIVE PLAN (2007-2012)

NORTH ST. LOUIS SOIL AND WATER CONSERVATION DISTRICT

Approved June 14, 2007

Table of Contents

1) Introduction

- A) Purpose
- B) Authorization and Jurisdiction of the SWCD
- C) Organizational Commitment

2) Soil and Water Conservation Issues

- 1) Water Resources Protection
- 2) Development
- 3) Outreach and Education
- 4) Forestry
- 5) Groundwater
- 6) Natural and Community Resources (including Recreation) Protection
- 7) Agriculture
- 8) Wildlife Management

3) Maps

4) Soils

5) Cost-Share Program Requirements

6) Future Strategy

I. Introduction

A. Purpose

The purpose of this Comprehensive Plan is to:

- 1) Identify existing or potential problems and opportunities for protection, management or development of water resources and related land resources in north St. Louis County.
- 2) Develop and implement a plan of action to promote sound hydrologic management of water and related land resources in north St. Louis County.
- 3) To work toward effective environmental protection and management in north St. Louis County.

This plan will serve as a resource to guide supervisors and staff of the North St. Louis Soil and Water Conservation District (SWCD) in order to meet our goal of being accountable, proactive and efficient while trying to maintain and/or improve the natural resources of north St. Louis County.

There are many important conservation issues within the boundaries of the North St. Louis SWCD. The SWCD cannot be active in all of them. This plan identifies which issues the Board of Supervisors determined are most important to address, and identifies actions that should be initiated to meet SWCD resource management objectives.

This Comprehensive Plan is for the time period July 2007 through June 2012.

B. Authorization and Jurisdiction of the SWCD

The North St. Louis SWCD is a governmental and political subdivision of the state of Minnesota. The SWCD is a public body corporate and politic, and is governed by five elected supervisors.

State law governs the formation and operation of Soil and Water Conservation Districts. *The Water Law* of the state of Minnesota contains *Soil and Water Conservation Law* and *Soil and Water Conservation Policy*. *Soil and Water Conservation Policy* is Minnesota's statement on soil and water conservation. A power granted to SWCD's is to implement this general policy.

The Water Law – Chapters 103A – 103G

Soil and Water Conservation District Law – Chapter 103C

Soil and Water Conservation Policy 103C.005 (and 103A.206)

“Improper land use practices have caused serious wind and water erosion of the land of this state, the runoff of polluting materials, increased costs to maintain agricultural productivity, increased energy costs and increased flood damage. Land occupiers have the responsibility to implement practices to correct these conditions and conserve the soil and water resources of the state. It is the policy

of the state to encourage land occupiers to conserve soil and water resources through the implementation of practices that effectively reduce or prevent erosion, sedimentation, siltation and agriculturally related pollution in order to preserve natural resources, ensure continued soil productivity, control floods, prevent impairment of dams and reservoirs, assist in maintaining the navigability of rivers and harbors, preserve wildlife, protect the tax base, and protect public lands.”

Soil and Water Conservation District Law grants SWCDs the following powers:

- To give advisory assistance
- To conduct surveys, investigations, and research
- To publish information
- To conduct demonstration projects
- To implement practices
- To implement the state soil and water conservation policy
- To acquire and maintain property
- To use and rent machinery and supplies
- To construct improvements
- To perform comprehensive planning
- To assume conservation projects
- To enter into contracts and be sued
- To receive compensation for work or projects
- To make agreements for federal assistance
- To establish a budget
- To allocate funds for state and national associations
- To acquire liability insurance

Land Area

The North St. Louis SWCD area includes all lands in St. Louis County north of and including Township 55 North from Ranges 12 through 21 West. This area is approximately the northern three-quarters of St. Louis County. The North St. Louis SWCD area contains nearly four million acres.

Mission Statement

The mission of the North St. Louis Soil and Water Conservation District is to provide leadership and programs that protect our natural resources by uniting people and organizations to overcome obstacles while protecting and maintaining the diversity of our environment.

C. Organizational Commitment

The North St. Louis SWCD is a local agency which provides access to conservation and resource management services. In cooperation with, federal, state and local agencies, the District provides technical assistance, cost-sharing and natural resource management information and education. Urban and rural landowners, businesses, industry and agencies may request these services.

II. Soil and Water Conservation Issues

The North St. Louis SWCD will address eight conservation issue areas in this Comprehensive Plan. The SWCD recognizes the interrelationship between different resources problems and various causes of impairment. Some issues or objectives could fit in more than one category. Problems and issues are grouped for the sake of organization. The preservation, protection, and enhancement of water quality and other natural resources are the objectives of the North St. Louis SWCD. Projects, grant proposals, work plans, policy decisions, and other efforts that impact water quality will be considered first. Additional resources will be applied toward other natural resource areas.

Established priorities will help determine how the SWCD resources are allocated. The SWCD will perform actions to solve these problems recognizing the interrelationship of many of the issues. The SWCD will first focus on highly ranked problems with respect to staff time, staff training, program development, financial assistance, outreach, and policy decisions.

Identification of Issues

1) Water Resources Protection

- Development impacts to shoreland
- Impacts to stream water quality
- Loss of riparian vegetation

A. SWCD Objectives

To protect, preserve, and enhance streams, inland lakes, and the Lake Superior basin. Work to improve or maintain the ecological integrity of these waters. Work to implement projects or practices that correct situations that are causing, or could cause, these waters to be impaired.

B. SWCD Actions Needed to Meet Objectives

1. Application of existing SWCD programs

- Apply technical, educational, and financial assistance to install best management practices on streams and inland lakes. This includes utilizing CCLNS JPB #3, BWSR, and NRCS engineering assistance. State cost-share, USDA cost-share programs, and other funding sources will be utilized.
- Work on existing and initiate new, watershed protection and restoration projects.

Barber and Dempsey Creek Watersheds Pilot Project

- Initiate and serve as lead for pilot project
- Increase and maintain riparian vegetation, specifically through Forest Stewardship Plan initiatives and the Clean Water Legacy grant implementation process.

- Lead best management practice (BMP) installation efforts along with project partners.
- Act as administrative agent for grants.

Other Watershed Projects

- Initiate and support other watershed projects when appropriate.
- Review DNR water permits and provide input to help limit negative impacts, paying closer attention to stream crossing projects that may require additional technical assistance.
- Utilize Geographic Information System tools to identify high priority erosion sites and target technical and financial assistance.

2. Strengthening of existing SWCD programs

- Increase education efforts that focus on lake and stream protection.
- Provide more input and support for the Virginia Lakes Beautification committee.
- Continue to provide input to Lake Superior Basin Plan, and work to implement the plan when completed.
- Implement the St. Louis County Water Management Plan in cooperation with St. Louis County.
- Continue to be a member of the Arrowhead Water Quality Team.

2) Development

- Construction site erosion and sediment control
- Gravel pits
- Loss of wetlands
- Septic systems
- Stormwater quality and quantity
- Urban nonpoint source pollution

A. SWCD Objectives

To reduce, mitigate, or eliminate environmental impacts caused by development-related activities

B. SWCD Actions Needed to Meet Objectives

1. Application of existing SWCD programs

- Complete Wetland Conservation Act responsibilities:
 - Serve on St. Louis County Technical Advisory Committee / Technical Evaluation Panel.
 - Providing technical and educational assistance to further wetland conservation.
 - Serve as an information center for WCA.
 - Complete wetland restoration plans.

- On a fee for service basis provide assistance to land occupiers for wetland determinations, project application forms, and replacement plans.
- Take notes for the monthly St. Louis County Technical Advisory Committee meetings. Distribute minutes and agenda.
- Apply technical, educational, and financial assistance that leads to the installation of best management practices that minimize the impacts of development.
- Complete gravel pits reclamation plans that emphasize restoring ecological integrity.

2. Strengthening of existing SWCD programs

- Provide more erosion and sediment control leadership, resources, and training.
- Develop the SWCD into an information center and technical resource for developers so the SWCD input is desired early in the development process. Work to develop an effective natural resources protection input into decision-making processes to demonstrate that natural resources protection can be sustainable for the local economy *and* the environment.
- Develop the SWCD as a geographic information center for communities and developers so natural resources information can be compiled for a site and incorporated into the planning process.
- Continue to develop a comprehensive Low-Impact Development Assistance Program or conservation site design assistance that provides technical and financial incentives for developers to limit negative environmental impacts.
- Work to restore degraded wetlands and restore lost wetland functions locally.

3. Establishment of new SWCD programs

- Work with communities to administer delegated official controls for erosion and sediment control ordinances.
- Develop a Shoreline Buffer Cost-Share Program offering to pay a set percentage of a landowner's expenses to establish a permanent buffer with native vegetation after the installation of the practice is certified complete.

3) Outreach and Education

- Education programs for youth and adult audiences regarding identified SWCD priorities
- Improve lack of coordination and consistency with agencies and regulations
- Outreach regarding the SWCD programs

A. SWCD Objectives

To educate youth and adult audiences about high priority soil and water conservation problems. To facilitate greater cooperation, understanding, and collaborative approaches to resources management between various agencies, organizations, and the public.

B. SWCD Actions Needed to Meet Objectives

1. Application of existing SWCD programs

- Work with the media to publicize SWCD programs and policies.
- Conduct workshops and public meetings on topics that are SWCD priorities.
- Give presentations to schools and community groups about topics that are SWCD priorities.
- Set up displays or booths at public events to publicize SWCD programs.
- Increase SWCD visibility.
- Distribute SWCD conservation education curricula and programs for use in area schools.

2. Strengthening of existing SWCD programs

- Publish SWCD newsletters more frequently and provide more information regarding SWCD priorities.
- Continue to promote and assist with the Envirothon while working to increase participation of teams from northern St. Louis County.
- School District participation.
- Develop and publicize SWCD Board positions on important environmental issues.

3. Establishment of new SWCD programs

- Seek opportunities to facilitate greater cooperation, understanding, and collaborative approaches to resources management between various agencies, organizations, and the public.
- Continue attending Arrowhead Water Quality Team Meetings to combine efforts with other agency representatives in producing environmental education materials and opportunities for public awareness re: natural resource conservation.

4) Forestry

- Forest management impacts
- Private lands stewardship

A. SWCD Objectives

To provide assistance to private landowners to enable healthy forests on private lands. To provide technical assistance to limit negative environmental impacts from forest harvesting and management activities.

B. SWCD Actions Needed to Meet Objectives

1. Application of existing SWCD programs

- Maintain annual Tree Sale Program
 - Concentrate on supplying trees for conservation and education uses and programs (example: Virginia School Forest – 5th grade tree planting day)

- Initiate and conduct watershed-based forest stewardship projects that concentrate on providing technical assistance to private forest owners. Project goals will focus on improving and maintaining riparian vegetation and water quality. Continue to apply to DNR Forestry and other sources to complete projects.
 - Implement Barber and Dempsey Creek Watershed Forest Stewardship Project.
 - Continue to offer assistance on a watershed basis. Identify additional watersheds for stewardship assistance.
 - Apply technical, education, and financial assistance to install forestry BMP's that limit or correct nonpoint source pollution.
 - Continue to promote *Sustaining Minnesota Forest Resources: Voluntary Site-Level Forest Management Guidelines for Landowners, Loggers and Natural Resources Managers*.
 - Continue to be a supporting and acting member of the Minnesota SWCD Forestry Association
2. Strengthening of existing SWCD programs
- Provide more technical and financial resources to enable implementation of management recommendations identified in completed stewardship plans.
 - Provide more urban forestry assistance by providing leadership and promoting programs like Tree City USA and others.
3. Establishment of new SWCD programs
- Work with the forest industry and public foresters on erosion guidelines during harvest practices.
 - Look for opportunities to increase the level of forestry assistance that the SWCD can provide.

5) Ground Water

- Ground water / drinking water quality

A. SWCD Objectives

To protect and improve ground water quality. To protect ground water quality in areas where land occupiers rely on private wells for water supply, particularly in developing suburban and rural areas. To protect ground water that contributes critical base flows for streams, especially streams that support coldwater fish species.

B. SWCD Actions Needed to Meet Objectives

1. Application of existing SWCD programs

- Apply technical, educational, and financial assistance to install best management practices that protect ground water quality. This includes utilizing CCLNS JPB #3, BWSR, and NRCS engineering assistance.

- Utilize State cost-share, USDA cost-share programs, and other funding sources to assist landowners.
2. Strengthening of existing SWCD programs
 - Hold drinking water sampling clinics.
 - Continue to monitor ground water observation wells for the State of Minnesota.
 - Increase the number of volunteers in the MNgauge Program that submit monthly precipitation monitoring reports to the SWCD.
 3. Establishment of new SWCD programs
 - Initiate or support wellhead protection projects for community well systems or areas of special concern.
 - Initiate or support an abandoned well identification and sealing program.

6) Protection of Natural and Community Resources

- Green space planning / protection
- Land use planning
- Natural resources inventories
- Trails, parks, and special areas

A. SWCD Objectives

To protect and preserve critical lands while maintaining existing ecological integrity. To enable the continued enjoyment and use of public resources while minimizing negative impacts.

B. SWCD Actions Needed to Meet Objectives

1. Application of existing SWCD programs
 - Apply technical, educational, and financial assistance to install best management practices that protect natural and community resources.
2. Strengthening of existing SWCD programs
 - Utilize the SWCD Tree Sale Program and related technical assistance to support community resource restoration and protection projects.
 - Strengthen advisory relationship with other units of government regarding natural and community resource protection.
3. Establishment of new SWCD programs
 - Develop a comprehensive easement, purchase development rights, or other land protection programs that work in our area as incentives to protect and preserve critical natural areas.
4. Assist other agencies with Trail maintenance and creation

- Strengthen working relationship with cooperating agencies in dealing with trail maintenance and creation for multiple use including hiking, biking, snowmobiling, ATV and nature trails.

7) Agricultural

- Agricultural erosion
- Animal waste management
- Misuse of fertilizer and chemicals
- Sustainable agriculture

A. SWCD Objectives

To provide financial and technical assistance to agricultural operations which minimize negative environmental impacts. To support sustainable agricultural initiatives and operations that protect the environment, preserve family farming, and conserve energy.

B. SWCD Actions Needed to Meet Objectives

1. Application of existing SWCD programs

- Apply technical, educational, and financial assistance to install best management practices that minimize nonpoint source pollution from agricultural operations. This includes utilizing CCLNS JPB #3 and NRCS engineering assistance. State cost-share and USDA cost-share programs will be utilized. The SWCD will depend primarily on NRCS abilities and resources for technical assistance.
- Maintain agricultural best management practice revolving loan funds for animal waste practices and equipment.
- Provide assistance and support for sustainable agricultural initiatives.

2. Strengthening of existing SWCD programs

3. Establishment of new SWCD programs

8) Wildlife Management

- Exotic species
- Loss of wildlife habitat

A. SWCD Objectives

To protect and enhance wildlife habitat.

B. SWCD Actions Needed to Meet Objectives

1. Application of existing SWCD programs

- Continue to offer selections of trees and shrubs through the Tree Sale Program that will benefit wildlife.
- Continue to promote Back Yard Conservation materials and programs.

- Contact the MN Deer Hunters Association President annually to obtain grass/clover seed mix for distribution to landowners that have had silvicultural activities conducted. The seed would be applied to landing areas and access roads to prevent erosion and improve wildlife habitat.
 - Apply technical, educational, and financial assistance for wildlife habitat creation. The SWCD will depend primarily on NRCS technical assistance and cost-share programs.
2. Strengthening of existing SWCD programs
 3. Establishment of new SWCD programs

III. Maps

Since St. Louis County is so large, maps were not placed directly into this document. For Zoning, Wetland and Aerial Photography maps, the St. Louis County Physical Planning Department website can be linked to at: <http://www.co.st-louis.mn.us/slcportal/SiteMap/HomePage/Departments/Planning/PhysicalPlanning/Maps/tabid/290/Default.aspx> ,or for copies contact the North St. Louis Soil and Water Conservation District directly.

IV. Soils

The Natural Resource Conservation Service is working to complete the soil survey for St. Louis County. The information and direct links will be released on the North St. Louis SWCD website when it is made available through the NRCS.

V. Cost-Share Program Requirements

A. Nature and Extent of High Priority Problems

The Minnesota Board of Water and Soil Resources has defined high priority problems. The North St. Louis SWCD must apply cost-share assistance only to sites that meet the following definitions:

High priority erosion problems are areas where erosion from wind or water is occurring equal to or in excess of 2 x T, active gully erosion, or is identified as a high priority in the comprehensive local water plan or SWCD Comprehensive Plan.

High priority water quality problems means areas where sediment, nutrients, chemicals, or other pollutants discharge to DNR designated Protected Waters or to any high priority water identified in a comprehensive local water plan, or the SWCD comprehensive plan, or discharge to a sinkhole or ground water. Pollutant delivery rates will impair the quality or usefulness of the water resource.

North St. Louis SWCD identification of High Priority Problems

- Barber and Dempsey Creek Watersheds Pilot Project. Grant will be implemented from June 2007 until June 2008.
- Nonpoint source pollution impacting all Public Waters of the State including the Lake Superior Basin Streams
- Nonpoint source pollution impacting ground water.
- Nonpoint source pollution impacting wetlands with significant surface water or ground water interactions.

B. Conservation Measures Needed

The North St. Louis SWCD will utilize the following practices to solve High Priority Problems:

- Shoreland stabilization
- Sediment and erosion control structures and practices
- Critical area stabilization, including revegetation of areas utilizing the Forest Stewardship and Clean Water Legacy Act grant funds.
- Stormwater control practices
- Other appropriate engineered or ecological best management practices approved by the Minnesota BWSR

VI. Future Strategy

A. Adjustments Needed in SWCD Authorities and/or Programs

The most important changes need to be made at the local level. Cooperation with projects and programs at the local level is needed to effectively protect local resources. The SWCD should work with other local governments to administer delegated official controls in regard to sediment and erosion control ordinances.

The North St. Louis SWCD requires higher general service grants, and cost-share funding levels. The SWCD and state of Minnesota should strengthen and develop programs that focus on protecting resources, not just correcting ongoing problems. Current cost-share programs require a reactive approach to resource protection. More funding is required in St. Louis County to support programs that work to proactively protect water quality. These programs include SWCD general service grants, regular and special project cost-share, county water planning, and Wetland Conservation Act administration.

B. Budget Forecast (see Table below)

**NORTH ST. LOUIS SWCD
5 YEAR COMPREHENSIVE PLAN BUDGET**

EXPENDITURES

2007 2008 2009 2010 2011

DISTRICT OPERATIONS

Personal Services – Staff & Board	93,014	95,804	98,674	101,634	104,684
Other Services & Charges	7,200	7,416	7,636	7,866	8,101
Supervisor Expenses	4,000	4,000	4,000	4,000	4,000
Employee Expenses	4,000	4,000	4,000	4,000	4,000
Supplies	2,000	2,000	2,500	3,000	3,000
Capital Outlay	2,500	2,000	3,000	1,500	2,000
Rent	2,600	2,600	3,000	5,000	5,000
Vehicle Expenses	2,300	2,500	2,800	3,000	3,300

PROJECT EXPENSES - DISTRICT

Tree Program	15,000	15,000	16,000	16,000	17,000
Fees & Dues	4,000	4,300	4,500	4,500	4,800
Information & Education	1,900	2,000	2,100	2,200	2,300

PROJECT EXPENSES - STATE

Regular Cost-Share	11,340	10,420	11,945	12,020	12,820
MPCA Lake Superior Basin Proj.	10,000	00	00	00	00
Coastal Non-Pt Implementation	12,000	00	00	00	00
Forest Stewardship Program	8,000	9,000	10,000	10,000	11,000
Bufferstrip Cost-Share Program	00	00	00	1,000	2,000
Lake Monitoring Svc. Expenses	00	00	500	1,000	1,500
SLR Special Projects	00	00	00	00	00

******TOTAL EXPENDITURES = \$179,854 \$161,040 \$170,655 \$176,720 \$185,505**

REVENUES

2007 2008 2009 2010 2011

INTERGOVERNMENTAL

St. Louis County	59,400	59,400	60,000	60,000	60,000
St. Louis Co. Planning Dept. Agrmt.	16,000	16,000	18,000	18,000	20,000
St. Louis Co./WCA Block Grant	10,237	10,237	10,237	10,237	10,237

STATE

Regular Cost-Share	11,025	13,025	14,025	15,025	16,025
General Service Grant	22,965	22,965	22,965	22,965	22,965
MPCA Barber & Dempsey Creek	20,000	0	0	0	0
Clean H2O Legacy (Forest Stwd)	16,000	10,000	15,000	20,000	20,000
Coastal Non-Pt Implementation	11,000	0	00	00	00
OB Wells	600	600	600	600	600
Forest Stewardship Grant	8,000	10,000	11,000	11,000	12,000

CHARGES FOR SERVICES

Tree Sales	15,000	16,000	17,000	18,000	19,000
Wetland Services Fees	500	600	700	800	900
Lake Monitoring Services	00	00	1,000	2,000	3,000

MISCELLANEOUS REVENUE

Interest	900	1,000	1,500	2,000	2,500
Other	300	400	500	600	700

*****TOTAL REVENUES = \$ 180,927 \$163,027 \$171,527 \$180,627 \$187,927**