

**South St. Louis
Soil & Water Conservation District**

Comprehensive Plan

2003-2007

***Final Approval by the
South St. Louis SWCD Board of Supervisors
December 23, 2002***

I. Introduction

A. Purpose

The purpose of this Comprehensive Plan is to establish an action strategy for the South St. Louis Soil and Water Conservation District. This plan is necessary to guide supervisors and staff and to meet our goal of accountable, proactive, efficient, and highly effective natural resources protection.

There are many important conservation issues in South 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 2003 through 2007.

B. Authorization and Jurisdiction of the SWCD

The South 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 SWCDs 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
- ◆ To administer delegated official controls

Land Area

South St. Louis SWCD includes all lands in St. Louis County south of and including Township 54. This area is approximately the southern one-quarter of St. Louis County. South St. Louis SWCD contains just over one million acres.

Mission Statement

The mission of the South St. Louis Soil and Water Conservation District is to provide technical, educational, and financial resources to land occupiers, units of government and others in order to implement practices and projects that preserve, protect, and enhance water quality and other natural resources.

C. Organizational History

The South St. Louis SWCD was established in August of 1963. The original boundaries included only the western portion of southern St. Louis County. This area contained the greatest proportion of agricultural land in southern St. Louis County, as it still does today. The SWCD expanded in 1965, and reached the present day borders in 1972 as the city of Duluth and surrounding areas were added.

The SWCD was originally formed to assist area farmers with drainage problems, soil management, woodlot management, and other farm-related concerns.

II. Soil Survey

The soil survey for St. Louis County is in progress. The Natural Resource Conservation Service is working to complete the survey.

South St. Louis SWCD Soil Associations

Soils mainly formed in organic materials

Greenwood-Rifle-Seeyleville

Soils mainly formed in sandy to clayey lacustrine sediments

Spooner-Baudette-Cathro

Ontonagon-Hibbing

Soils mainly formed in noncalcareous and nonacid loamy glacial till

Hibbing-Duluth-Dusler

Newfound-Rifle

Ahmeek-Finland-Automba

***Soils mainly formed in outwash sediments or in glacial drift overlying outwash
Cloquet-Cromwell-Omega***

Source: *Soil Associations of Minnesota*, University of Minnesota Agricultural Experiment Station, 1983

III. Soil and Water Conservation Problems

The South St. Louis SWCD will address eight conservation issue areas. 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 is the objective of the South 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.

For this plan update the SWCD Board of Supervisors completed questionnaires, and asked for external input from partner agencies to determine the most important conservation issues in our area. To establish priorities supervisors considered input, past efforts, current programs, and potential opportunities.

Established priorities will help determine how 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.

Problem Identification and Rankings

Rank	Soil and Water Conservation Problem	Corresponding Issues
1	Lake and Stream 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 Lake Superior. To work to improve or maintain the ecological integrity of these waters. To 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.

- ◆ Apply technical, educational, and financial assistance to correct Lake Superior shoreline erosion. Engineering assistance from the BWSR Lakeshore Engineer will be utilized. The SWCD will continue to make Clean Water Partnership revolving loan funds available to land occupiers, along with cost-share funds, as a financial incentive.

- ◆ Work on existing, and initiate new, watershed protection and restoration projects.

Miller Creek

- ❖ Initiate CWP Phase II implementation activities identified in the Miller Creek Diagnostic Study and Implementation Plan.
- ❖ Increase and maintain riparian vegetation.
- ❖ Lead best management practice installation efforts along with project partners.
- ❖ Act as administrative agent for grants.
- ❖ Support and cooperate with the Miller Creek Joint Powers Board.

Knife River

- ❖ Act as administrative agent for grants.
- ❖ Initiate best management practice installation efforts through project partners.
- ❖ Initiate and complete a Total Maximum Daily Load watershed plan for the Knife River Watershed in cooperation with the MPCA and Knife River Stewardship Committee.

Midway River

- ❖ Act as an administrative agent for grants.
- ❖ Lead best management practice installation efforts.
- ❖ Identify resource management problems.
- ❖ Conduct public education campaigns.
- ❖ Continue to work cooperatively with the Carlton County SWCD on watershed projects.

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 St. Louis River Citizen Action Committee and the *St. Louis River System Remedial Action Plan*.
- ◆ Continue to provide input to Lake Superior Basin Plan, and work to implement the plan when completed.
- ◆ Provide input for the development of the Duluth Stormwater Plan.
- ◆ 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.

3. Establishment of new SWCD programs

- ◆ Develop a Lake and Stream Management Program that packages and markets comprehensive SWCD assistance to lake associations, conservation organizations, and land occupiers.
- ◆ Develop a comprehensive Shoreland Vegetation Program for St. Louis County that will be a major component of the Lake and Stream Management Program.

Rank	Soil and Water Conservation Problem	Corresponding Issues
2	Combined Impacts of 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.
 - ❖ Serve on Duluth, Hermantown, Proctor, Floodwood, and Meadowlands TEPs.
 - ❖ 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.
- ◆ Apply technical, educational, and financial assistance that leads to the installation of best management practices that minimize the impacts of development.
- ◆ Complete and initiate wetland protection planning tools, initiatives, and projects similar to the *Miller Creek Wetland Functional Analysis* project.
- ◆ Continue to be on the steering committee and support the Head of the Lakes NEMO (Nonpoint Source Pollution Education for Municipal Officials) project
- ◆ 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 SWCD input is desired early in the development process. Work to develop a “business case” for early, 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 implement NPDES Phase II requirements.
- ◆ Work with communities to administer delegated official controls for erosion and sediment control ordinances.

Rank	Soil and Water Conservation Problem	Corresponding Issues
3	Outreach and Education	Education programs for youth and adult audiences regarding identified SWCD priorities
		Lack of coordination and consistency with agencies and regulations
		Outreach regarding SWCD programs

A. SWCD Objectives

To educate youth and adult audiences about high priority SWCD 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 Duluth 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.
- ◆ Develop and publicize SWCD positions on important conservation issues.

Rank	Soil and Water Conservation Problem	Corresponding Issues
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
- ◆ 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.
 - ❖ Continue Knife River Watershed Forest Stewardship Project.
 - ❖ Continue Sucker-French-Talmadge-Lester Rivers 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 best management practices 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 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

- ◆ Consider opportunities in the 2002 Farm Bill for the SWCD to provide more technical and financial assistance for forestry assistance.
- ◆ 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.

Rank	Soil and Water Conservation Problem	Corresponding Issues
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 cold-water 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. State cost-share, USDA cost-share programs, and other sources will be utilized.

2. Strengthening of existing SWCD programs

- ◆ Hold drinking water sampling clinics.

3. Establishment of new SWCD programs

- ◆ Support the completion of a ground water study for St. Louis County.
- ◆ 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.

Rank	Soil and Water Conservation Problem	Corresponding Issues
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 and maintain existing ecological integrity. To enable the continued enjoyment and use of public resources and minimize 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.
- ◆ Continue to work towards obtaining conservation easements in the Miller Creek Watershed.

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.

Rank	Soil and Water Conservation Problem	Corresponding Issues
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 to 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

- ◆ Lead the Local Work Group process to ensure local participation in USDA program decisions.
- ◆ Consider opportunities in the 2002 Farm Bill for the SWCD to provide more technical and financial assistance to rural land occupiers.

3. Establishment of new SWCD programs

Rank	Soil and Water Conservation Problem	Corresponding Issues
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 offer packets for specific wildlife habitat objectives.
- ◆ Continue to promote Back Yard Conservation materials and programs.
- ◆ 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

IV. 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 South 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.

South St. Louis SWCD identification of High Priority Problems

- ◆ Nonpoint source pollution impacting Lake Superior and Lake Superior Basin Streams
- ◆ Nonpoint source pollution impacting ground water.
- ◆ Nonpoint source pollution impacting wetlands with significant surface water or ground water interactions.
- ◆ Approximately 25 high-priority feedlots

B. Conservation Measures Needed

The South 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
- ◆ Stormwater control practices
- ◆ Other appropriate engineered or ecological best management practices approved by the Minnesota BWSR

V. Future Strategy

A. Budget Forecast

See Table 1

B. 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 South 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.

Table 1 2003 – 2007 Budget Forecast

	Actual	Projected			
Expenditures	2003	2004	2005	2006	2007
District Operations					
Personnel Services	\$126,187	\$130,000	\$133,900	\$138,000	\$142,000
Other Services and Charges	\$23,435	\$24,000	\$24,000	\$25,000	\$25,000
Supplies	\$1,600	\$1,700	\$1,700	\$1,800	\$1,800
Equipment	\$1,500	\$2,000	\$2,000	\$2,000	\$2,000
Project Expenses- Cost Share					
Special Projects	\$15,000	\$0	\$0	\$0	\$0
Cost Share	\$31,000	\$8,000	\$8,000	\$8,000	\$8,000
Project Expenses- SWCD					
Tree Program	\$34,000	\$34,000	\$34,000	\$35,000	\$35,000
Forest Stewardship	\$3,500	\$10,000	\$10,000	\$10,000	\$10,000
Watershed Projects	\$381,980	\$100,000	\$100,000	\$100,000	\$100,000
Total Expenditures	\$618,202	\$309,700	\$313,600	\$319,800	\$323,800
Revenues					
Intergovernmental: State					
State General Services	\$22,965	\$22,965	\$22,965	\$22,965	\$22,965
Special Projects	\$15,000	\$0	\$0	\$0	\$0
Cost Share	\$31,000	\$8,000	\$8,000	\$8,000	\$8,000
State C/S Administration	\$2,182	\$2,182	\$2,182	\$2,182	\$2,182
Intergovernmental: County					
County Allocation	\$51,000	\$63,000	\$65,000	\$70,000	\$74,000
NRBG WCA	\$5,000	\$10,000	\$10,000	\$10,000	\$10,000
Charges for Services					
CCLNS JPB #3 Admin	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Wetland Services	\$500	\$500	\$500	\$500	\$500
Tree Program	\$62,000	\$64,000	\$64,000	\$65,000	\$65,000
Misc Revenue	\$7,755	\$14,053	\$15,953	\$16,153	\$16,153
Project Revenues					
MN DNR - Forest Stewardship	\$3,500	\$10,000	\$10,000	\$10,000	\$10,000
MN DNR - Coastal Program	\$319,000	\$50,000	\$50,000	\$50,000	\$50,000
MPCA 319/TMDL	\$83,300	\$50,000	\$50,000	\$50,000	\$50,000
MPCA - CWP	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Total Revenue	\$618,202	\$309,700	\$313,600	\$319,800	\$323,800