

1. EXECUTIVE SUMMARY

1. ORGANIZATIONAL PURPOSE

The purpose of the CCWMO is to fulfill the County's water management responsibilities under Minnesota Statute and Rule. The County chose this structure because it will provide a framework for water resource management as follows:

- Provides a sufficient economic base to operate a viable program;
- Avoids duplication of effort by government agencies;
- Avoids creation of a new bureaucracy by integrating water management into existing County departments and related agencies;
- Establishes a framework for cooperation and coordination of water management efforts among all of the affected governments, agencies, and other interested parties; and
- Establishes consistent water resource management goals and standards for at least 80% of the county.

2. WATERSHED INFORMATION

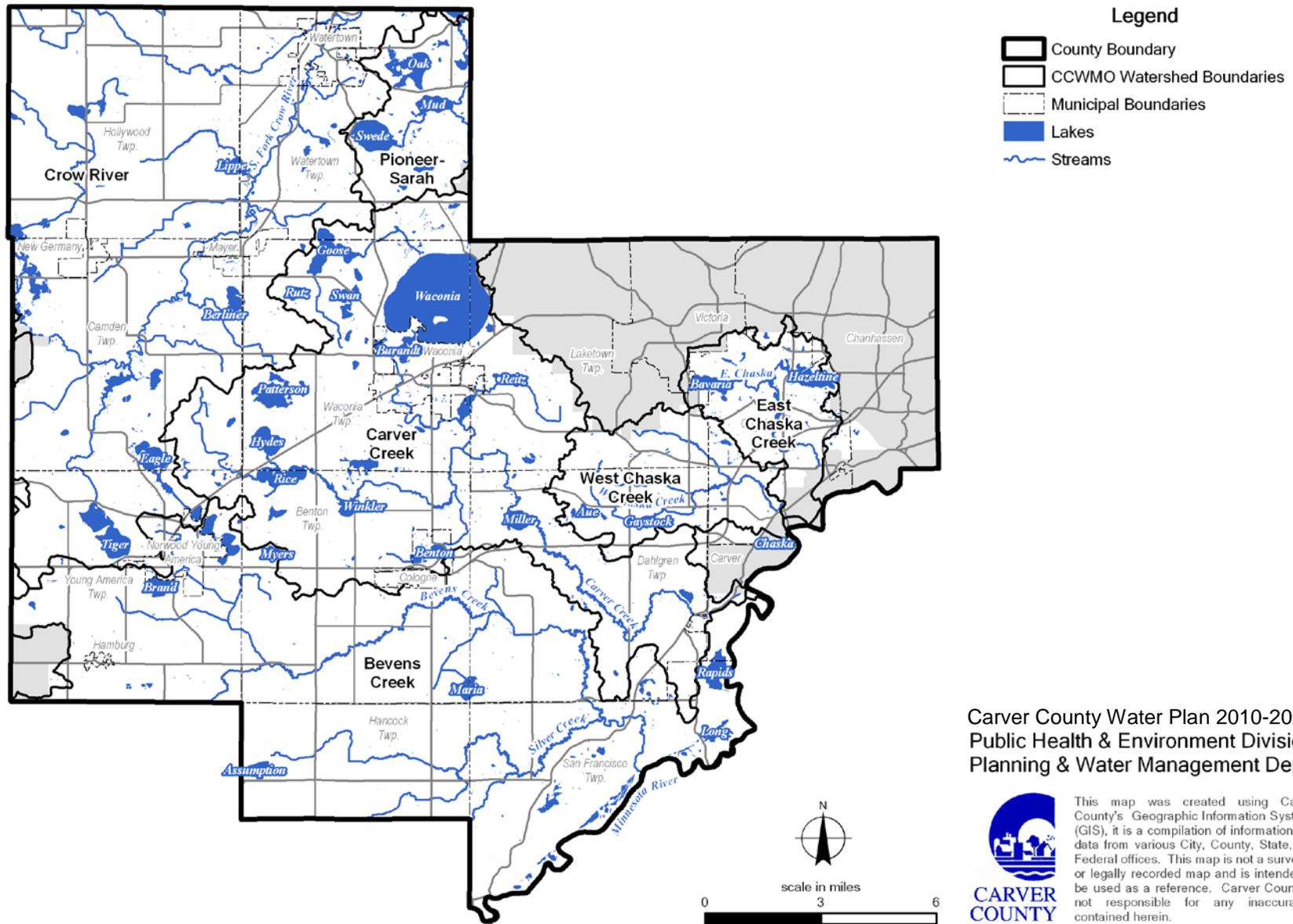
2.1. Watershed Boundaries

The Carver County Watershed Management Organization (CCWMO) covers approximately 320 square miles on the southwestern edge of the Twin Cities Metropolitan Area. The watershed covers most of Carver County; draining an area approximately 23 miles from east to west and 23 miles from north to south. There are six major subwatersheds within the CCWMO. The Crow River Subwatershed and the Pioneer-Sarah Creek Subwatershed drain to the South Fork of the Crow River. The Bevens Creek, Carver Creek, East Chaska Creek, and West Chaska Creek Subwatersheds drain to the Minnesota River. Figure 1-1 shows the WMO's legal boundaries and the governmental units located within the district.

2.2. History of the Organization

In October of 1996, the Board of Water & Soil Resources (BWSR) declared the Carver Creek, Bevens Creek, South Fork Crow River, Chaska Creek and Hazeltine Bavaria Creek Joint Powers Water Management Organizations (WMOs) "non-implementing" and terminated the organizations. On October 30 1996, BWSR sent the Carver County Board of Commissioners a letter notifying the Board of its responsibility for water management pursuant to Minnesota Statute 103B.231 Subd. 3(b). The statute requires that the County assume all water management responsibilities in all of the areas of the county that were previously under the Joint Powers WMOs. The statute gives the County all of the authority and responsibility for management – planning, funding, regulation, and implementation – of a water management organization. The CCWMO adopted its first Watershed Management Plan in 2001.

Figure 1-1. CCWMO Watershed Boundaries (Source: Carver County)



Carver County Water Plan 2010-2020
Public Health & Environment Division
Planning & Water Management Dept.



This map was created using Carver County's Geographic Information Systems (GIS), it is a compilation of information and data from various City, County, State, and Federal offices. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Carver County is not responsible for any inaccuracies contained herein.

3. PLAN SUMMARY

This Watershed Management Plan is intended to be a ten-year planning document to guide WMO activities. The Plan is divided into the chapters listed below. A brief summary of each chapter is included.

1. Land and Water Resources Inventory
2. Major Issues
3. Implementation Program
4. Administration
5. Appendices

3.1. Land and Water Resource Inventory

Chapter 2: Land and Water Resource Inventory contains detailed information regarding land and water resources within the Carver County Watershed Management Organization boundaries. Information is grouped into four primary categories: physical environment, biological environment, human environment, and hydrologic systems. The Physical Environment section and includes information on climate, topography and drainage, geology and soils. The Biological Environment section includes information on land cover, vegetation, and wildlife. The Human Environment section includes information on land use and growth patterns, recreation, and potential environmental hazards. The Hydrologic Systems section includes information on surface water and groundwater systems.

3.2. Major Issues

A summary of the eleven identified issue areas and the goals for each issue is presented below. The issues are broken down into sub-issue areas and described in more detail in Chapter 3: Major Issues.

Surface Water Management

Poor management of surface water resources and surrounding land can have major impacts on water quality and flooding. Failure to take into account the context of the surrounding watershed when addressing surface water management issues can also result in solutions that are unsuccessful or have unintended consequences.

Goal SW-1 Maintain or improve the physical, chemical, biological, and aesthetic condition of surface water resources in the CCWMO, taking into account the watershed context of each resource.

Impaired Waters and TMDL Approach

“Impaired waters” are those waters that do not meet state water-quality standards for one or more pollutants, thus they are “impaired” for their designated uses. Total Maximum Daily Load (TMDL) studies are then conducted in order to set pollutant reduction goals needed to restore waters.

Goal IW-1 Receive EPA approval for TMDLs for all listed impaired waters within the CCWMO.

Urban Stormwater Management

Urbanization has and will continue to substantially increase the rate and amount of surface water runoff due to an increase in impervious surfaces. Historically, unmanaged stormwater runoff during and after construction has increased sedimentation and flooding in downstream areas.

Goal USM-1 Minimize and mitigate the impacts of urban stormwater runoff on water resources.

Wetland Management

Wetlands are one of the most productive ecosystems. They provide biological and chemical functions to the landscape that serve the watershed including the moderation of nutrient and sediment flow, storage and release of water, filtering of pollutants, buffering of riverbanks and lake shores from erosion, and the production of abundant and diverse plant and animal life. Today, less than 50 percent of the pre-settlement wetlands remain in Carver County. Protecting existing wetlands and restoring wetlands is also critical to improving other surface water resource within the watershed. Therefore, wetland protection and restoration is of great importance to the Carver County Watershed Management Organization (CCWMO).

Goal WM-1 Manage and restore wetlands in the County to protect and maximize the values of wetland functions.

Agricultural Practices

Feedlots. Improperly managed feedlots can lead to contamination of surface water and groundwater.

Goal AG-1 Manage feedlots so that the quality of surface water and groundwater is not impaired.

Rural Land Use Practices. Properly managed land contributes to the solution to water quality and water quantity issues within a watershed. Every landowner should be involved in the effort to solve the unique problems within their watershed. There is financial, technical, and educational assistance from various agencies to help landowners implement conservation practices on private and public owned land.

Goal AG-2 Encourage public and private landowners to implement conservation practices on the land they are responsible for.

Sanitary Sewer Discharge

Subsurface Sewage Treatment Systems. Failing and improperly maintained Subsurface Sewage Treatment Systems (SSTS) present a substantial threat to the quality of surface water and groundwater.

Goal SSD-1 Ensure, to the extent possible, that all SSTS are properly designed, installed, operated, maintained and/or replaced in order eliminate health hazards and discharges to surface water or groundwater.

Treatment Plant Discharges. Proper treatment and disposal of wastewater plays an important part in protecting and preserving water resources.

Goal SSD-2 Ensure that waste load reductions for WWTPs identified in TMDLs are incorporated into WWTP permits.

Upland Natural Resources

Upland natural resources are essential to maintaining the function and quality of surface water resources.

Goal NR-1 Preserve and restore aquatic, wetland and associated upland habitats in a watershed context.

Groundwater Management

A variety of land use activities can impact groundwater quality and availability. Contaminants from land use activities within well recharge areas; unsealed, unused wells; storage tanks; and unplanned or overuse of groundwater supplies as a result of development can all impact groundwater quality and availability.

Goal GW-1 Protect groundwater quality and groundwater supplies.

Solid & Hazardous Waste

When solid and hazardous wastes are improperly handled or improperly disposed, they can become a threat to surface water and groundwater. Stockpiles, dumps, salvage yards, spills, and illegal dumping can affect surface water and can potentially infiltrate into aquifers and contaminate the aquifer. Some hazardous waste contamination can potentially contaminate aquifers to the point where the water is no longer a feasible drinking source.

Goal SHW-1 Prevent contamination of groundwater and surface water through proper disposal or handling of solid and hazardous waste.

Education

Education is recognized as a key component of implementing the Carver County Water plan. Education is necessary to help people make informed decisions and build sustainable lifestyles and habits that help protect water resources. Most potential contamination threats to surface water and groundwater are human-caused, thus a significant element in prevention of contamination can occur through educational efforts. Thus education is a key component of implementation of good water quality and conservation practices. In developing the education program, it is necessary to determine the target audiences, priority issues, available programs and tools, and best delivery methods to be effective and efficient.

Education is also part of the requirements with a Municipal Separate Storm Sewer System (MS4) permit. Carver County, City of Carver, City of Chaska, City of Waconia and the City of Victoria all have MS4 permits. The permit requires the entity to create a Stormwater Pollution Prevention Program with six components, one of them being public education and outreach, another being public participation.

Goal ED-1 To provide those living, working, and recreating in Carver County with the knowledge, skills, and motivation required to assure protection and improvement of the county's surface water and groundwater resources.

Monitoring & Assessment

The quality of lakes and streams in Carver County can be impacted by land use activities, development patterns, and increased runoff. Steps taken to reduce these impacts will result in varying degrees of benefit on improving water quality in different locations in the county. Setting goals for quality of the water resource and assessing its status over the long term is essential for determining the effectiveness of mitigation efforts and, in some instances, required as part of Total Maximum Daily Loads (TMDLs). TMDLs' have become the driving force in dealing with impaired waters and how they are dealt with in the State of Minnesota. A majority of the monitoring and assessment that is done in Carver County is in response to the State's program and mandates therein. Each TMDL and corresponding Implementation Plan that is written is required to have sections devoted to monitoring and assessment and is seen as a crucial part for each of these binding documents.

Goal MON-1 To maintain a comprehensive, accurate assessment of surface and ground water quality trends over the long term and comply with all current and future TMDL's monitoring and assessment protocols. This data will used to compile trend analysis, assess BMP effectiveness, and complete TMDL studies.

3.3. Implementation Plan

A summary of the implementation program is included in Chapter 4: Implementation. The implementation plan discusses responsible parties, costs, and funding. Strategies identified in the implementation plan are intended to serve as a road map for planning purposes.

3.4. Administration

Board of Managers

The five member Carver County Board is the "governing body" of the CCWMO for surface water management and the entire county for groundwater management. In function and responsibility the County Board is essentially equivalent to a joint powers board or a watershed district board of managers.

General Content of Required Local Plans

Local plans shall be developed as required by rules and policies promulgated by the Board of Water and Soil Resources (Minnesota Rules Chapter 8410). The Administration Chapter of this Plan specifies both statutory requirements for local plans as well as additional requirements established in this Plan. To be approved by the CCWMO, local plans must be at least as effective at protecting the water resources of the CCWMO as this Plan and CCWMO rules. Local plans may be more stringent than this Plan and CCWMO rules. Each local plan shall be adopted within two years of BWSR approval of the CCWMO Plan. The CCWMO will consider alternative local plan amendment and update schedule requests from LGUs and will try to be flexible on due dates to accommodate the update schedules of other WMOs when LGUs are within the jurisdiction of more than one WMO. Municipalities have the option of taking over authority for implementing CCWMO standards or, based on community specific needs, interests and resources, they may choose to have permitting authority remain with the CCWMO.

3.5. Appendices

The plan contains six appendices:

- **Appendix A: Plan Development Process** summarizes the process used to develop the plan, including the entities that contributed to the development and review of the Draft Plan and the types of outreach used to reach each audience. It also includes information on the formal review process.
- **Appendix B: Infiltration Rates & Surficial Geology Data** summarizes concept design infiltration rates and surficial geology information.
- **Appendix C: Wetland Functional Value Assessment Methodology** summarizes the process used to assess wetland functional values in the CCWMO.
- **Appendix D: Cost Share Program Criteria** includes the selection criteria for the cost share programs described in Chapter 5.
- **Appendix E: 2001 Plan Evaluation** includes an evaluation of the CCWMO's success in implementing the 2001 Water Plan.
- **Appendix F: Acronym List & Glossary** contains a list of acronyms used in the plan and a glossary for technical terms found in the plan.