Purpose of Report

The Carver County Water Management Organization (CCWMO) is responsible for performing management tasks including, planning, funding, regulation, and implementation of the Carver County Water Management Plan. The CCWMO includes the following watersheds; Bevens Creek, Carver Creek, East and West Chaska Creek, Pioneer-Sarah, and the Crow River (see map on page 3).

In order to fulfill legislative requirements on surface and groundwater, Carver CCWMO developed a Water Management Plan that was adopted in 2001. The goal of the Plan is to protect, preserve and manage the CCWMO’s surface and groundwater systems in the midst of rapid growth and intensive agricultural activity. The plan presents sustainable and equitable methods to reach that goal by providing guidance and specific standards for decision-makers, residents, landowners, educators, and implementing staff at the local level. Within the Water Management Plan, there are twelve priority areas the CCWMO has identified needing immediate and continued action. These include: Subsurface Sewage Treatment Systems (SSTS), Feedlots, Construction Site Erosion and Sediment Control, Stormwater Management, Land Use Practices for Urban and Rural Areas, Water Quality Assessment, Wetland Management, Groundwater, Natural Resource Management, Education, Total Maximum Daily Loads (TMDLs), and Solid Waste.

This report is intended to provide an annual look at the activities accomplished as well as challenges encountered by the Carver County Water Management Organization (CCWMO). This report contains information on specific WMO activities(organized by issue as presented in the current CCWMO plan), projects, programs, planning efforts, and financial activity for 2010 as well as a summary of goals for 2011. It is not intended to provide comprehensive detail on all aspects of 2008 WMO implementation. Further reports, data, and information are referenced in each section and available either via the website or on request as noted. This report fulfills the requirements of MN St. 103B.231 & MN Rules Ch. 8410.0150.

Multiple county departments help implement the CCMWO plan. The Carver County Board of Commissioners is the governing board. The Water, Environment, and Natural Resources (WENR) Committee acts as the citizen advisory board and the Planning & Water Management department is responsible for administration, implementation and coordination. Implementation is also the responsibility of Environmental Services, the Carver Soil & Water Conservation District (SWCD), and the Land Management dept. The CCWMO also coordinates with the University of Minnesota Extension for implementation activities. The term “CCWMO” used in this document is inclusive of all of these County departments and agencies.

For more information, visit our website at http://www.co.carver.mn.us/water.
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CCWMO Governing Board - Carver County Board of Commissioners

Gayle O. Degler  District 1
541 Pine View Court
Chanhassen, MN  55317
(952) 403-7047
gdegler@co.carver.mn.us

Tom Workman  District 2
181 South Shore Ct
Chanhassen, MN 55317
(952) 303-9460
tworkman@co.carver.mn.us

Randy Maluchnik  District 3
112510 Ramsey Court
Chaska, MN 55318
(612) 303-9459
rmaluchnik@co.carver.mn.us

Tim Lynch  District 4
17050 - 32nd Street
Mayer, MN 55360
(952) 353-2598
tlynch@co.carver.mn.us

James M. Ische  District 5
13080 Co Rd 52
Norwood, MN 55368
(952) 466-5851
jische@co.carver.mn.us

CCWMO Primary Staff Contacts
Paul Moline
Planning & Water Management
952-361-1825
pmoline@co.carver.mn.us

Mike Wanous
Soil & Water Conservation District
952-466-5235
mwanous@co.carver.mn.us

Mike Lein
Environmental Services
952-361-1800
mlein@co.carver.mn.us

Randy Wolf
Director - Public Health & Environment Division
952-361-1820
rwolf@co.carver.mn.us
Consultants
With the implementation of the CCWMO Water Management plan, there are programs which require the need of engineering services. In 2001, the CCWMO began using outside private engineering services as a more cost effective way to address these needs as opposed to hiring an engineer on staff. As part of identifying engineering service needs for the 2009-2011 period and responding to MN state statute 103B.227 Subd. 5 (requires the CCWMO to seek proposals from engineering firms every 2 years), staff sent out requests for proposals directly to appropriate firms in addition to a published legal notice. A team comprised of CCWMO and SWCD staff and a WENR advisory committee members reviewed and ranked six proposals submitted, and agreed on a recommendation, followed by Board approval to retain Wenck Associates, Barr engineering, SRF Consulting, and Emmons & Olivier Resources Inc. as the primary consultants for the period of July 1, 2009 to June 30, 2011.

WENCK Associates
Mr. Kenton C. Torve, P.E.
P.O. Box 249
Maple Plain, MN  55359
(763) 479-4209
ktorve@wenck.com

Emmons & Olivier Resources
Mr. Jay Michels
651 Hale Ave.
Oakdale, MN  55128
(651) 770-8448
jmichels@eorinc.com

BARR Engineering
Nancy Johnson Dent, P.E.
4700 West 77th Street
Minneapolis, MN  55435
(952) 832-2806
ndent@barr.com

SRF Consulting inc.
Mr. David Filipiak, Principal
One Carlson Parkway North, Suite 150 |
Minneapolis, MN 55447-4443
763.475.0010
dfilipiak@srfconsulting.com

Primary assistance needed in 2010:
- Development Review and Compliance
- Cost Share Project Review
- Capital Project Design
- Local Plan Review
- CCWMO Water Plan Update Assistance
- General engineering services
- Geologic Atlas Interpretation
- TMDL QA/QC
Citizen Advisory Committee
Water Environment & Natural Resource Committee (WENR)

Purpose
The Water, Environment, & Natural Resource Committee (WENR) is established as a permanent advisory committee. The WENR is established and operated under the County’s standard procedures for advisory committees. The WENR committee works with staff in the Land and Water Services Division of Carver County to make recommendations to the County Board on matters relating to the CCWMO water management plan and budget; and advises staff and the County Board on environmental, waste and recycling issues. As the need arises for special projects, the County Board reserves the right to obtain additional input from stakeholders and citizens who may not be serving on the advisory committee. A technical advisory committee made up of WENR members, local staff, state agency staff, consultants or persons with local expertise may also be assembled on a project by project basis.

- Provide and seek public input to staff on current and impending policies affecting water, environment, recycling, and solid and other waste issues, which affect Carver County residents.
- Seek and provide input into Carver County’s Solid Waste Master Plan and Water Management Plan updates.

Membership (as of Jan 2011)
Bruce Jones  Citizen Rep Comm. District 1
Bob Burandt   Citizen Rep Comm. District 2
Audrey Kramer Citizen Rep Comm. District 3
Daniel Palmer Citizen Rep Comm. District 4
Virgil Stender (V Chair) Citizen Rep Comm. District 5
Eric Evenson  Carver Creek watershed
Scott Hoese (Chair) Crow River/Pioneer Creek watersheds
Gail Von Bargen Bevens Creek watershed
Scott Smith  East/West Chaska Creek watersheds
Neil Johnson  Watertown Township
Terry Jeffrey  City of Chanhassen
Bill Monk City of Chaska
Jake Saulsbury City of Waconia
Luayn Murphy City of Mayer
Bill Bohnen SWCD Board Member
Mark Zabel- SWCD Board Member Alternate
Jim Ische - Carver County Board Member
Tim Lynch - Carver County Board Member Alternate
Feedlots
Improperly managed feedlots have a high risk of polluting surface and groundwater. The County is responsible for managing feedlots so the quality of surface and ground water is not impaired.

2010 Objectives
- Implementation of the State and County regulations continue to be the focus of this program, with inspections a high priority.
- Inspector continues to educate operators about requirements and work with operators to help bring them into compliance.
- Continue with Level III inventories during inspection process.
- Complete State MPCA Registration Process in elink.
- Focused inspection and manure management education in selected TMDL watersheds.
- Pursue grant funding to develop a local foods initiative in Carver County.
- Focused compliance on landowners signed into the Open Lot Program. The compliance deadline is October 1, 2010.

2010 Activities included:
- 384 Feedlots registered, continuously updated and inspected.
- Completed mandatory four year registration cycle. All feedlots in Carver County are current with MPCA registration requirements.
- Conducted 80 feedlot compliance inspections in 2010.
- E-link was updated to reflect all inspections completed in 2010.
- Four landowners submitted applications and received Construction Short Form permits for construction/expansion of their feedlots.
- Completed compliance verification at three feedlots enrolled in MN PCA Open Lot program. Continued ongoing compliance at 2 additional feedlots enrolled in the open lot program as they transition their farm operations.
- One uncertified manure storage basin reconstructed and certified. Assisted MPCA in a major ongoing uncertified basin enforcement action.
- Made initial contact with dairy farmers to direct them to milk house waste grant funding. Will eliminate nine direct discharge milk house waste systems during the grant term.
- Successful concluded the Dennis Lenzen manure discharge case. Restitution collected and continued owner assistance to avoid future manure discharge to surface waters.
- Evaluated pollution potential on 15 feedlots and issued compliance requirements.
- Distributed manure land application setback requirement information to landowners in an ongoing effort to reduce fecal and nutrient runoff to surface waters.
- Conducted Level III Land Application inspections and issued Notices of Violation to landowners not in compliance with land application setback requirements.

2011 Objectives
- Implementation of the State and County regulations continue to be the focus of this program, with inspections a high priority.
- Inspector continues to educate operators about requirements and work with operators to help bring them into compliance.
- Continue with Level III inventories during inspection process.
- Gain feedlot operator cooperation to implement milk house waste grant program eliminating nine direct discharge milk house waste systems.
- Focused inspection and manure management education in selected TMDL watersheds.
- Review feedlot ordinance to maximize its effectiveness in meeting TMDL watershed requirements.
More information:

- Appendix A - CPA 2010 Annual CFO Supplementary Report Form & CPA 2010 Annual CFO and Performance Credit Report Form
- Specific inspection reporting via e-link as available (BWSR)
- Contact:
  Mike Lein
  Environmental Services
  952-361-1800
  mlein@co.carver.mn.us
Subsurface Sewage Treatment Systems

Failing and improperly maintained SSTS present a substantial threat to surface and groundwater. The County is responsible for eliminating all non-conforming systems, ensuring that all new systems are properly designed and installed, and ensuring all systems are properly managed, operated, and maintained.

In 2010, objectives were:

- Continue to administer state and county SSTS rules and regulations.
- Administer the Direct Discharge Cost-Share incentive program.
- Distribute 3 year pumping notices
- Continue to pursue and obtain financial assistance opportunities for SSTS owners.
- Focused effort through the Bevens and Carver Creek Bacteria TMDL through continuation of direct discharge incentive program.

2010 Activities included:

- 665 SSTS pumped & 1,259,236 Gallons distributed.
- 112 SSTS permits issued.
- 97 Permits for SSTS to be replaced, 9 permits for new SSTS to be installed, 6 repair SSTS permits issued.
- 119 SSTS installed.
- 157 Properties visited, with over 520 site visits conducted.
- 78 Compliance inspections conducted on existing SSTS.
- Improved the tracking and enforcement of non-compliant SSTS. Reduced the number of ongoing enforcement cases from 60 to 18. Factors effective enforcement through dedication of County Attorney staff and annual reminders to affected residents regarding compliance deadlines.
- Worked with Water Management staff to identify likely IPHT SSTS for the TMDL study and required them to be upgraded via the grant and loan program.
- 36 participants in the Direct Discharge Cost-Share incentive program. 18 of these systems were in TMDL sub-priority watersheds.
- SSTS loans (TMDL & Revolving fund) and cost share monies - provided timely review and accurate tracking of approved applicants. 35 loans and 13 grants issued.
- Participated in MPCA SSTS Technical Advisory Panel (TAP).
- Staff acquired Advanced Designer, Advanced Inspector and Service Provider certification after attending multiple courses and passed the examinations.

2011 Objectives

- Continue to administer state and county SSTS rules and regulations.
- Administer the Direct Discharge Cost-Share incentive program.
- Distribute 3 year pumping notices.
- Continue to pursue & obtain financial assistance opportunities for SSTS owners.
- Focused effort through the Bevens and Carver Creek Bacteria TMDL through continuation of direct discharge incentive program.
- Update the SSTS Ordinance.

More information:

- Contact:
  Mike Lein
  Environmental Services
  952-361-1800
  mlein@co.carver.mn.us

The direct discharge program eliminated SSTS which had little or no treatment prior to discharging waste directly to surface waters, 2010 focus was on high priority sub watersheds in Carver and Bevens creeks.
Construction Site Erosion & Sediment Control

Improper planning, installation and maintenance of construction site erosion and sediment control practices cause shortened life of sediment basins, increased nutrient loads in water, and impaired water quality. The CCWMO is responsible for managing construction sites to implement Best Management Erosion and Sediment Practices (BMESPs) and prevent on and off site erosion and sedimentation.

2010 Objectives were:
- Conduct 200 construction site erosion control inspections
- Participate in educational efforts to raise awareness of the impacts of storm water and CWEC on water quality.
- Provide technical assistance to LGU’s, citizens and contractors for best use of stormwater BMP’s.
- SWCD - Continue to monitor all open sites County-wide for Water Rules and NPDES compliance; continue to provide technical assistance as needed.

Activities included:
- Completed 131 site inspections for CSEC
- There were 93 active construction sites in 2010. SWCD staff completed inspections on the sites that had potential for negative impacts to natural resources. Carver (6), Chanhassen (38), Chaska (34), Cologne (1), NYA (17), Waconia (8), Watertown (27), Northern Natural Gas (2), MNDOT (Bongards turn lanes - 2).
- Staff assisted with a filtration/ infiltration component on 13 of these sites.
- As of 12/1 there were 228 open NPDES permits in Carver County, many of these sites are considered inactive. An example of an inactive site would be a residential development that still has some vacant lots - the NPDES permit must stay open although the site would be considered inactive.
- Staff also attended numerous preconstruction meetings and technical assistance field visits for these sites.
- Worked with city staff on technical assistance for construction site erosion control and best management practices.

2011 Objectives
- Conduct 150 construction site erosion control inspections
- Continue to provide technical assistance to LGU’s, citizens and contractors for best use of BMP’s.
- Inspect sites for water rules and NPDES compliance.
- Participate in educational efforts to raise awareness of the impacts of storm water.
- Increase technical capacity in the latest water quality improvement techniques.

More information:
- Appendix B Water Project Review List (includes well sealing)
- Contact:
  Paul Moline
  Planning & Water Management
  952-361-1825
  pmoline@co.carver.mn.us
Land use Practices for Urban & Rural Areas

Every piece of land contributes to water quality and quantity. Financial, technical, and educational assistance are offered to help landowners implement conservation practices.

The CCWMO is responsible for promoting water resource protection in the CCWMO and encouraging landowners to implement conservation practices.

2010 Objectives

- Distribute federal funding to agricultural producers based on priorities identified by local work group.
- Manure mgmt. planning, native grass plantings, pasture renovations, lakescaping, streambank restorations, distribute AG BMP low interest loans for conservation practices, Carver County small project fund, tree sales and planting design.
- Promote and provide technical support the installation and maintenance of Best Management Practices.
- Seek financial aid in the form of State Cost Share and federal EQIP for the installation of BMP’s.
- Work cooperatively with the USDA NRCS and FSA to promote and implement the federal USDA programs such as EQIP, CRP, CCRP, and WHIP.
- Assist federal partners with compliance of the Sodbuster and Swampbuster requirements of the federal Farm Bill.
- Partner with the Association of Metro Soil and Water Conservation Districts and utilize staff expertise for projects in Carver County.

2010 Activities included:

- Conservation Reserve Program (CRP) & Continuous Conservation Reserve Program (CCRP)
  - In 2010 the SWCD and NRCS assisted in enrolling 608 acres of new CRP practices with 39 participants. These new CRP acres must be in sensitive areas to qualify for the CRP program. Carver County currently has over 350 active CRP contracts which total around 4,000 acres.
- Cost-Share Program funding has been reduced over the past few years because of the state’s financial crises. In 2010, the SWCD has paid out over $18,000 in cost-share assistance for the installation of 4 grassed water ways, and one critical area planting. Whenever possible, the federal EQIP program is used to assist landowners with ag related conservation measures.
- Promoted the BWSR RIM Buffer program, 9 applicants have been selected for funding in Carver County.
- Advanced the RIM/WRP sod farm wetland restoration, the easements have now been closed and restoration will take place in 2011.
- Ditch Inspection Program: Inspected 6 ditch systems, assisted in repair procedures on 5 ditch systems.
- Provided technical assistance to 29 landowners with raingarden questions.
- Assistance with the installation of 6 raingardens.
- Provided technical assistance to 12 landowners with shoreline restoration question

2011 Objectives:

- Distribute federal funding to agricultural producers based on priorities identified by local work group and in the areas of impaired waters.
- Promote and provide technical support for installation and maintenance of Best Management Practices.
- Seek financial aid in the form of State Cost Share and federal EQIP for the installation of BMP’s.
- Work cooperatively with the USDA NRCS and FSA to promote and implement the federal USDA programs such as EQIP, CRP, CCRP, and WHIP.
- Assist federal partners with compliance of the Sodbuster and Swampbuster requirements of the federal Farm Bill.
- Partner with the Association of Metro Soil and Water Conservation Districts and utilize staff expertise for projects in Carver County.
- Market programs to landowners in all of Carver County but with an emphasis on the TMDL watersheds.
More information:

- Contact:
  Mike Wanous
  Soil & Water Conservation District
  952-442-5105
  mwanous@co.carver.mn.us
Groundwater
Groundwater is affected by many issues including SSTs, feedlots and land use practices. Risks include contamination and overuse resulting in groundwater shortages. The County is responsible for protecting groundwater from contamination by sealing abandoned wells and properly disposing of solid and hazardous waste, and ensuring an adequate supply of groundwater for residential and commercial needs.

2010, objectives were:
- Continue Well Sealing program with enhanced promotion and secure enhanced cost share funds available for program
- Continue funding and assisting with Groundwater Atlas partnership project towards 2011 completion. Finalize funding with watershed district partners.
- Seek partnerships with state, local and adjacent agencies for enhanced groundwater monitoring activities.
- Determine how updated groundwater plan will be integrated into water plan update process. (red text, Joe unsure of, run by Paul)

2010 Activities included:
- 4 well sealing request received and 3 were approved
- Continued working with MGS on the groundwater atlas program. Funding commitments received from three adjacent watershed districts.
- Assisted Lower MN WD with seminary fen groundwater monitoring.

2011 Objectives
- Continue Well Sealing program with enhanced promotion and secure enhanced cost share funds available for program
- Continue funding and assisting with Groundwater Atlas partnership project towards 2011 completion. Finalize funding with watershed district partners.
- Seek partnerships with state, local and adjacent agencies for enhanced groundwater monitoring activities.
- Begin update of groundwater plan.

More information:
- Contact:
  Paul Moline
  Planning & Water Management
  952-361-1825
  pmoline@co.carver.mn.us
Waste
With the expansion of the metropolitan area into Carver County, programs are needed to accommodate the increase in solid waste. The County Environmental Services Dept is responsible for development and implementation of such programs including; waste and toxicity reduction, reuse, waste recycling, composting of yard waste, incineration, and more. The CCWMO plan includes waste mgmt as an important implementation tool to keep waste and pollutants out of area waters.

2010 Objectives
- Continue point source generation licensing and inspection program
- Continue operations of Environmental Center to provide solid and hazardous waste recycling/disposal options for hazardous waste and problem materials.
- Finalize plan for Mayer operational facility.

2010 Activities included:
- Continued identification, licensing and inspection programs for hazardous waste and solid waste
- 300 hazardous waste generators with 100 inspections
- Continued collection of household hazardous waste and solid waste at the Environmental Center
- Expanded recycling program developed for western Carver County with facility located in Mayer.

2011 Objectives
- Continue point source generation licensing and inspection program
- Continue operations of Environmental Center to provide solid and hazardous waste recycling/disposal options for hazardous waste and problem materials.
- Fit the EC with a canopy to protect residents/staff from bad weather in the unload area.

More information:
- Appendix D Environmental Center Annual Report
- Contact:
  Mike Lein
  Environmental Services
  952-361-1800
  mlein@co.carver.mn.us

Over 94 tons of paint was collected at the County Env. Center in 2010
**Stormwater Management**

Land use changes can cause increases in impervious surfaces in urban areas and a reduction in storage areas. This increases flood potential, water quality degradation, and wildlife habitat degradation. The CCWMO is responsible for providing stormwater attenuation and minimizing degradation of the water resources by reducing runoff.

In 2010, objectives were:
- Continue to review plans and enforce compliance with the Water Management Rules.
- Administer NPDES MS4 permit & update Industrial site permits.
- Re-evaluate stormwater standards (as part of WMO Plan update).
- Implement 2010 funded cost share & capital projects.
- Solicit, evaluate, rank, and propose funding for future cost share and capital projects.

2010 Activities included:
- 21 development projects reviewed.
- Annual NPDES Phase II MS4 2010 report submitted
- Committed to funding stormwater treatment cost share projects
- Stormwater treatment cost share projects completed
- Floodplain and shoreland rules enforced via County zoning in all townships.
- 7 projects were funded through the Land Owner Cost Share Program in 2010. The program pays for 75% of the cost of a project, up to $2,500. In 2010, project costs totaled $17,153 and the CCWMO contributed $8,764 towards the projects.

2011 Objectives
- Continue to review plans and enforce compliance with the Water Management Rules.
- Administer and update NPDES MS4 permit (secure 2011 NPDES Federal Permit)
- Complete revision of stormwater standards (as part of WMO Plan Implementation).
- Implement 2011 funded cost share & capital projects.
- Solicit, evaluate, rank, and propose funding for future cost share and capital projects.
- Organize Stormwater Workshop for engineers, developers, and contractors working in the CCWMO

More information:
- Appendix B Water Project Review List
- Contact:
  Paul Moline
  Planning & Water Management
  952-361-1825
  pmoline@co.carver.mn.us

Rain garden funded by land owner cost share program (Waconia).
Wetland Management
Wetlands improve water quality by reducing nutrients, sediments and the volume of water to lakes and rivers, and filtering pollutants. Wetlands are also one of the most productive ecosystems and provide vital habitat to many plants and animals. The CCWMO is responsible for managing and restoring wetlands and protecting their functions.

In 2010, objectives were:
• Continue to implement WCA in townships with assistance from Carver SWCD
• Understand and promote wetland restoration available through state and federal programs including WRP, RIM, private and public banking, CREP, CRP, CCRP, and USFWS programs.
• Assist the USDA with the wetlands provisions within the Farm Bill Program, including Swampbuster and 1026 drainage requests.
• Seek to prevent wetland losses by educating landowners of the state and federal wetland protection laws.
• Work with LGUs on wetland related issues.

Activities included:
• WCA Administration
  o More than 100 landowners were provided with wetland related technical assistance.
  o Review and approval of 6 applications for compliance with Wetland Conservation Act.
  o 12 potential violation sites investigated; 0 enforcement actions pursued.
  o Continued involvement in the BWSR Wetland Banking Road Replacement Program.

• Restoration Programs
  o Processed 3 applicants for the Wetland Reserve Program totaling 103 acres
  o Continued working with landowners on the sod farm wetland restoration site near Lake Waconia, easements with two of the landowners closed on 12/22/10. An application for the RIM/WRP program was approved for the third landowner
  o Continued working with landowners on the Crane Creek wetland restoration

• Water Plan
  o Adopted the updated Carver County Watershed Management Plan (Water Plan) in October 2010. It includes a chapter on Wetland Management.

2011 Objectives:
• Continue to implement WCA in townships with assistance from Carver SWCD
• Understand and promote wetland restoration available through state and federal programs including WRP, RIM, private and public banking, CREP, CRP, CCRP, and USFWS programs.
• Assist the USDA with the wetlands provisions within the Farm Bill Program, including Swampbuster and 1026 drainage requests.
• Seek to prevent wetland losses by educating landowners of the state and federal wetland protection laws.
• Work with LGUs on wetland related issues.
• Consider amending the CCWMO Rules to include additional wetland protection standards including, wetland transition setbacks.
• Begin developing and evaluating a list of priority wetland restoration sites.
• Develop a database for entering, storing, and reporting WCA related wetland information

More information:
• Appendix E: 2010 Carver County WCA Annual Report
• Contact:
  Kristen Larson and/or Mike Wanous
  952-361-1824 and/or 952-442-5101
Water Quality Assessment
The quality of lakes and streams is impacted by land use activities, development patterns, and increased runoff. Reducing these impacts improves water quality and monitoring determines the effectiveness of mitigation efforts. The CCWMO is responsible for maintaining a comprehensive and accurate assessment of surface and groundwater quality trends over time. In recent years, total maximum daily loads (TMDL’s) have become a pressing issue in the State as well as Carver CCWMO. Therefore our water quality monitoring and assessment program has been developed with a more focused approach to ensure we are gathering information necessary for TMDL development, reporting and implementation.

In 2010, objectives were:
- Continue staffing and funding of lake and stream monitoring program for fecal, nutrients and sediments.
- Focused monitoring as part of TMDL implementation and development, particularly Fecal TMDL Implementation.
- Identify 2010 infiltration/filtration monitoring sites.
- Continue water quality monitoring for Lower Minnesota River Watershed District.
- Continue partnership with U of M and DNR on carp project and population assessment.
- Make monitoring as automated as possible.

Activities included:
- Continued water sampling program for phosphorus, nitrogen, fecal coliform, and total suspended solids.
- 19 lakes sampled (14 by Carver County staff and 5 by CAMP volunteers)
- 19 active sampling stream sites (including Bio-monitoring)
- 10 Bio-monitoring sampling sites
- 6 infiltration/filtration sites monitored for phosphorus and total suspended solids.
- 15 infiltration/filtration sites inspected for general function and aesthetic appearance.
- Continued monitoring for TMDL development and implementation
- Continued monitoring of 20 sites for fecal coliform TMDLs.
- Addition of 17 sites for fecal coliform TMDL implementation.
- Continued monitoring of 10 stream sites for turbidity TMDLs.
- Continued monitoring for 13 lakes sites for nutrient TMDL.
- 41 gage sites monitored.
- 6 volunteer gage monitors, reported monthly.
- Partnership with Lower MN WD for lake, stream and GW monitoring.

2011 Objectives:
- Continue staffing and funding of lake and stream monitoring program for fecal, nutrients and sediments.
- Focused monitoring as part of TMDL implementation and development.
- Identify 2011 infiltration/filtration monitoring sites.
- Continue water quality monitoring for Lower Minnesota River Watershed District.
- Continue partnership with U of M and DNR on carp project and population assessment.
- Make monitoring as automated as possible.

More information:
- Appendix F Water Quality Report at [www.co.carver.mn.us/departments/LWS/wqmp.asp](http://www.co.carver.mn.us/departments/LWS/wqmp.asp)
- Contact:
  Greg Aamodt
  Planning & Water Management
  952-361-1804
  gaamodt@co.carver.mn.us
**Natural Resource Management**

In order to maintain the integrity of the aquatic and terrestrial ecosystems, and other desired human uses of water resources, management must distinguish which natural and cultural resources to preserve. The CCWMO is responsible for managing the CCWMO’s water resources as a way to preserve, protect, and enhance natural resources.

In 2010, objectives were:
- Adopt 2030 County Comprehensive Plan
- Complete MLCCS coverage (area missing in Chanhassen)
- Implement 2030 Comprehensive Plan including finalizing ordinances addressing the Conservation Incentive Zoning Option

Activities included:
- Carver SWCD Sold 20,190 trees to 198 individuals through tree program
- Updated Carver County Zoning Code to included Conservation Incentive Zoning Option

2011 Objectives:
- Complete MLCCS coverage (area missing in Chanhassen)
- Adopt and implement updated Zoning Code
- Assist Land Management and SWCD in implementing Conservation Incentive Zoning Option

More information:
- Contact:
  Paul Moline
  Planning & Water Management
  952-361-1825
  pmoline@co.carver.mn.us
Education

Education is recognized as a key component of implementing the Water Management Plan. The CCWMO is responsible for providing those living, working, and recreating in the county with the knowledge and skills required to assure protection and improvement of surface water and groundwater resources.

2010 Objectives:

- TMDL Burandy Lake Implementation Plan. Education and information distribution to homeowners and citizens in Waconia, MN through open houses, workshops, newsletters and newspapers, website, etc.
- Outreach & public participation as related to the development of additional TMDLs in Carver County.
- Participate in regional education programs-Watershed Partners, Blue Thumb, Stormwater U and NEMO.
- Continue development of new program SHEP, and increase member participation.
- Continuation of online newsletter and increase distribution; 6 newsletters in 2010.

Activities included:

- Continued K-12 education programs including Children’s Water Festival (Sept. 29, 1121 students), Volunteer Stream Monitoring Partnership (Holy Family Catholic HS), Wetlands Education Program (Sept. 13th, 14th, 15th & 24th, 235 students), and Envirothon (May 6th and 13th, 2 teams from Chaska HS)
- TMDL public process with Burandy Lake and 5 Lake TMDL and South Fork TMDL via press releases, website maintenance, postcard mailings and surveys.
- Contribution ($1,500) to Metro watershed Partners - including Metro media Campaign
- Stormwater U: 4 workshops hosted by Carver County
- NEMO collaboration for stormwater education of local officials and staff. Creation of Bio-retention Module and Linking Land Use to Water Module.
- Maintained County WMO website and displayed educational materials at the Carver County Fair, estimated 90,000 attendance annually.
- Continuation of Stream Health Evaluation Program (SHEP) (9 citizen volunteers monitored 2 sites)
- Water Management webpage had 1374 “hits” in 2010 and the water mngmt. volunteer page had 39684.

2011 Objectives:

- TMDL Reitz Lake Implementation Plan. Education and information distribution to homeowners and citizens through open houses, workshops, newsletters and newspapers, website, etc.
- Presentation of NEMO Linking Land Use to Water module to local decision makers in Carver County.
- Presentation of the Land-Water Connection to High School students throughout the County.
- Creation, development and use of more interactive tools at the Carver County fair to engage citizens.
- Expansion of SHEP program, more volunteers and more sites monitored.
- Continuation of both the monthly water column to newspapers and the PHE online newsletter.

More information:

- Appendix G LWS online newsletters and SHEP brochure.
- Contact:
  Madeline Seveland
  Planning & Water Management
  952-361-1026
  mseveland@co.carver.mn.us
Total Maximum Daily Loads
Surface waters within the State of Minnesota must meet certain water quality standards, as defined through the Clean Water Act of 1972. If such waters do not meet these standards, then they are listed upon the 303(d) Impaired Waters List, published by the Minnesota Pollution Control Agency every two years. Currently, 24 lakes are listed for nutrient impairments, 15 lakes are listed for aquatic consumption impairment due to mercury, two stream sections are listed for chloride impairment, nine stream sections are listed for turbidity impairments, two stream sections are listed for dissolved oxygen impairment, four stream sections have fish IBI impairment, one stream section is listed for aquatic macroinvertebrate bioassessments, and seven stream reaches are listed for fecal coliform impairments. TMDLs are developed to identify the pollutant source, establish a targeted loading amount that the surface water body must achieve to meet State Water Quality Standards, and implement best management practices to reduce these indentified pollutant source to the loading amount specified. The CCWMO is responsible for developing these TMDLs and their implantation plans.

In 2010, objectives were:
- Complete Draft Lake TMDL’s under contract with Minnesota Pollution Control Agency.
- Finalize the Carver & Bevens Creek Turbidity TMDL
- Focus efforts on eliminating contributing SSTS, approved manure management plans, and conservation practice implementation; Focus landowner education efforts.
- Continue and improve monitoring program to aide in developing TMDLs.

Activities included:
- Funding for Phase III Carver, Bevens & Silver Creek Fecal Bacteria Implementation received.
- Funding for Burandt Lake TMDL implementation received.
- Funding for pilot Milkhouse Waste Abatement Project received.
- Funding for SSTS Direct Discharge Incentives received.
- Approval of the Reitz Lake TMDL, Four Lakes TMDL and Three Lakes TMDL by the EPA.
- Approval of the Reitz Lake TMDL IP, Four Lakes TMDL IP, and Three Lakes TMDL IP by the MPCA.
- Completion of Turbidity TMDL Draft to be sent to EPA for preliminary review.
- Continued monitoring of 20 sites for fecal coliform TMDLs.
- Addition of 17 monitoring sites for fecal coliform TMDLs.
- Continued monitoring of 10 stream sites for turbidity TMDLs.
- Continued monitoring for 13 lakes sites for nutrient TMDL development.

2011 Objectives:
- Continue phase III Carver, Bevens & Silver Creek Fecal Bacteria Implementation - focus on sub-watersheds
  - Focus efforts on eliminating contributing SSTS, approved manure management plans, and conservation practice implementation.
  - Focus landowner education efforts.
- Continue and improve monitoring program to aide in developing TMDLs.
- Complete Bevens and Silver Creeks Turbidity TMDL and Carver Creek Turbidity TMDL.
- Complete Implementation Plans for EPA approved TMDLs.
- Complete Benton Lake Excess Nutrient TMDL.
- Start Reitz Lake Implementation Projects.
- Continue Lake Burandt Implementation Projects.
- Start Sunset Blvd. Innovative Stormwater Retrofit Project.
- Continue Milkhouse Waste Abatement Project.
- Continue SSTS Direct Discharge Incentive Program.
- Continue to seek outside implementation funding for TMDL and Water Plan projects.
• Start phase IV Carver, Bevens, and Silver Creek Fecal Bacteria Implementation - focus on subwatersheds.

More information:
• Appendix H Detailed annual reports on active TMDL grant agreements available on request.
• Contact:
  Paul Moline
  Planning & Water Management
  952-361-1825
  pmoline@co.carver.mn.us
Cost Share and Capital Projects
The CCWMO developed a process in 2007 to request, evaluate and approve cost projects using CCWMO levy funds. The projects are either cost-share projects which match local or other agency funds or they are considered in the Annual Capital Improvement Process (CIP) process included in the County Board budget process. There are also plans and/or studies which received CCWMO funding in 2010. NOTE: These are not funded using 2010 WMO funds exclusively. See financial summary for 2010 expenditures.

The following costs share projects were installed in 2010. (Not all funding disbursed in 2010

<table>
<thead>
<tr>
<th>Projects Installed in 2010</th>
<th>2010 Amount</th>
<th>Partner Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louis St Stormwater Retrofit</td>
<td>$18,600</td>
<td>City of Cologne</td>
</tr>
<tr>
<td>Waconia City Hall Rain Garden</td>
<td>$16,000</td>
<td>City of Waconia</td>
</tr>
<tr>
<td>Watertown Downtown Retrofit</td>
<td>$75,000</td>
<td>City of Watertown</td>
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<tr>
<td>Fireman’s Lake</td>
<td>$28,000</td>
<td>City of Chaska, Lower MNWD</td>
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<tr>
<td>TOTAL</td>
<td>$137,600</td>
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Cost Share Funds Approved in 2010

<table>
<thead>
<tr>
<th>Cost Share Funds Approved in 2010</th>
<th>2010 Amount</th>
<th>Partner Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-cost Landowner Cost Share</td>
<td>$58,000</td>
<td>Landowners</td>
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<tr>
<td>SSTs Direct Discharge Incentives</td>
<td>$72,000</td>
<td>Landowners</td>
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<tr>
<td>TOTAL</td>
<td>$130,000</td>
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2010 WMO Financial Summary

The Carver County WMO activity is funded partially by property taxes within the WMO coverage area and by grants from the Board of Water & Soil Resources (BWSR), Pollution Control Agency (PCA), Natural Resources, (DNR), Metro Council, Department of Agricultural (USDA), Clean Water Legacy and other sources. Revenue is used to fund operations including salaries, equipment, and engineering. Each individual watershed also has a tax levy for projects within the watershed.

The Carver County WMO is operated as part of the County’s land & Water Services Division (LWS). The WMO budget and levy is managed as a set of Programs in the LWS budget allowing WMO revenues and expenses to be isolated from other Division finances. The County is audited by the State Auditor on an annual basis; the WMO programs, since they are a part of the County’s financial system, are audited as part of this process.

Since the WMO activity is part of a larger organization, much of the cost of administration and overhead is absorbed into the larger organization. The efficiencies gained by integrating the water planning and WMO functions into the County organization instead of a separate organization is one of the reasons the County Board chose to take over water management instead of petitioning for a watershed district in 1996 when BWSR assigned water management responsibility in the five terminated JPA WMO’s to Carver County.

The WMO levy is not the only resource devoted to implementation of the Water Management plan. Other resources include: BWSR NRB grant, TMDL grants, Joint Powers with the MPCA, DNR and Metro Council grants, Clean Water legacy and 319 grants. Many of the programs operated by the County and the SWCD support Water Plan objectives - Shoreland Zoning, Floodplain Management, Wetland Conservation Act, Feedlot Management, Septic System permitting and management, Land Use planning and management, solid and hazardous waste management, agricultural BMP programs. Approximate funds leveraged with CCWMO levy was $380,000 in 2010.

Highlights of Finances & Programs

Revenue - Property taxes and development review/cost recovery fees are the principal sources of revenue. Fee revenue depends on the amount of development occurring - 2010 continued a trend of a decreasing number of development reviews.

Personnel Cost - a portion of the cost of the Planning & Water Mgmt Dept staff (Environmentalist III, Education Coordinator, P&WM Dept Manager, and Planning Technician) are allocated to the WMO.

Engineering - these costs consist of general engineering including local plan review and plan update support, and review of development proposals for compliance with the Water rules - stormwater management and construction site erosion control. The cost of development review is recovered from the applicant and is reflected in the fee revenue.

Monitoring - the CCWMO operates an extensive monitoring network with 7 automated stations, 8 LAKES, and numerous grab sample sites. The vast majority of monitoring costs are borne by TMDL grants, a Metro Council grant, and the BWSR NRB grant.

Indirect Costs - this reimburses the CCWMO for some of the overhead costs on operating the WMO function - heat, light, maintenance, computers administrative support, etc.
Carver SWCD - since the SWCD plays a key role in Water Plan implementation, an increased amount of WMO levy funds were used to support SWCD operational costs in 2008.

Project Funds - there are two types of project funds - the Low Impact Conservation Fund and watershed based project funds. The Low Impact Fund is available throughout the WMO and is used to cost share on small projects - tile inlets, rain gardens, shoreline restoration are some examples. The watershed funds are collected from the taxing districts based on the old Joint Powers WMO watershed boundaries. These funds are used to cost share on large projects within each watershed. Most of the funds shown in the budget have been allocated to projects.

**CARVER COUNTY WMO 2010 SUMMARY FINANCIAL REPORT**

<table>
<thead>
<tr>
<th>Revenue/Expenditure</th>
<th>Original</th>
<th>Final</th>
<th>Actual</th>
<th>Variance</th>
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<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td>524,798</td>
<td>524,798</td>
<td>498,209</td>
<td>26,589</td>
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<td>Permits/Fees/Cost Recovery</td>
<td>44,686</td>
<td>44,686</td>
<td>50,865</td>
<td>6,179</td>
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<td>Total Revenue</td>
<td>$569,484</td>
<td>$569,484</td>
<td>$549,074</td>
<td>$(20,410)</td>
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<td><strong>Total Expenditures</strong></td>
<td>$569,483</td>
<td>$547,962</td>
<td>$544,121</td>
<td>$3,841</td>
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<tr>
<td>(Project Funds incl carryovers)</td>
<td>$199,977</td>
<td>$199,977</td>
<td>$178,455</td>
<td>$21,522</td>
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