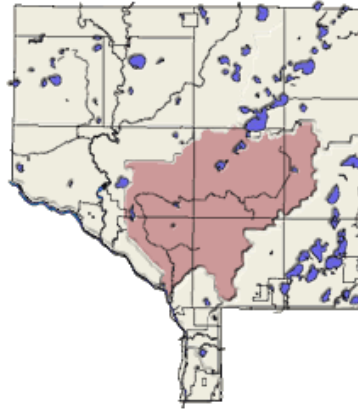


2008 Annual Report & 2009 Annual Plan



Coon Creek Watershed District

**12301 Central Avenue Northeast
Suite 100
Blaine, Minnesota 55434
Phone: 763.755.0975
Fax: 763.755.0283
Website: www.cooncreekwd.org**

**Approved by the Coon Creek Watershed District Board of Managers
March 23, 2009**



**Coon Creek Watershed District
Managers and Staff 2008-09**

Board of Managers

Warren Hoffman
Joe Marvin
Byron Westlund
Ted Capra
William MacNally

Office

President
Vice President
At Large
Secretary
Treasurer

Staff

Tim Kelly
Ed Matthiesen
Michelle Ulrich
Dawn R. Doering
Ken Zeik
Tom Gile
Diana Shonyo

Position

District Administrator
District Engineer
District Attorney
Information and Education Coordinator
Operations & Maintenance Coordinator
Regulatory Affairs Coordinator
Administrative Assistant

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1. Reporting Requirements

About the Performance Report and Plan The Coon Creek Watershed District is required to annually report on a variety of activities. These requirements and the State and Federal laws that mandate the reporting are listed below

Watershed Act The state of Minnesota's Watershed Act (M.S. 103D.351) requires the District to prepare a yearly report of

- The financial conditions of the District,
- The status of all projects,
- The business transacted by the District,
- Other matters affecting the interests of the District
- The District's plans for the succeeding year.

Metropolitan Water Management Act The Metropolitan Water Management Act (M.S. 103B.231) requires a yearly report similar to the Watershed Act but stipulates specific financial and activity items to be reported.

- Roster and contact information for the Board and Advisory Committees
- Various financial expenditure information
- Permit and enforcement activity
- Annual plan
- Status of local plan adoption
- Summary of monitoring data
- Status of wetland banking

Federal Clean Water Act The National Pollution Discharge Elimination System (NPDES) Program requires all MS4s to file an annual report of specific activities related to the Minimum Control Measures (MCMs) identified in the District Storm Water Pollution Prevention Plan (SWPPP).

**Wetland
Conservation Act**

The Minnesota Wetland Conservation Act (M.S. 103A) requires the Board of Water and Soil Resources to report to the legislature on various activities related to the implementation of Act. All LGUs that receive funding through the Natural Resource Block Grant (NRBG) program administered by BWSR are required to report on:

- The number of WCA applications
- Replacement plans
- Size of wetland impacts and losses
- Use of credits for replacement
- Exemption determinations
- Replacement wetlands
- Enforcement actions
- Administrative and technical training

2. Coon Creek Watershed District At a Glance

Introduction

The Coon Creek Watershed District (District) was created in 1959. The Watershed encompasses 94 square miles of the northern edge of the Twin Cities Metropolitan Area and is located entirely within Anoka County. The Watershed Act (103D) and the Metropolitan Water Management Act (103B) provide the most basic authorities for the District. In 1990 the District Board adopted a mission statement to guide District programs and activities:

Mission

To manage groundwater and the surface water drainage system to prevent property damage, maintain hydrologic balance, and protect water quality for the safety and enjoyment of citizens, and preserve and enhance wildlife habitat.

Organizational Structure

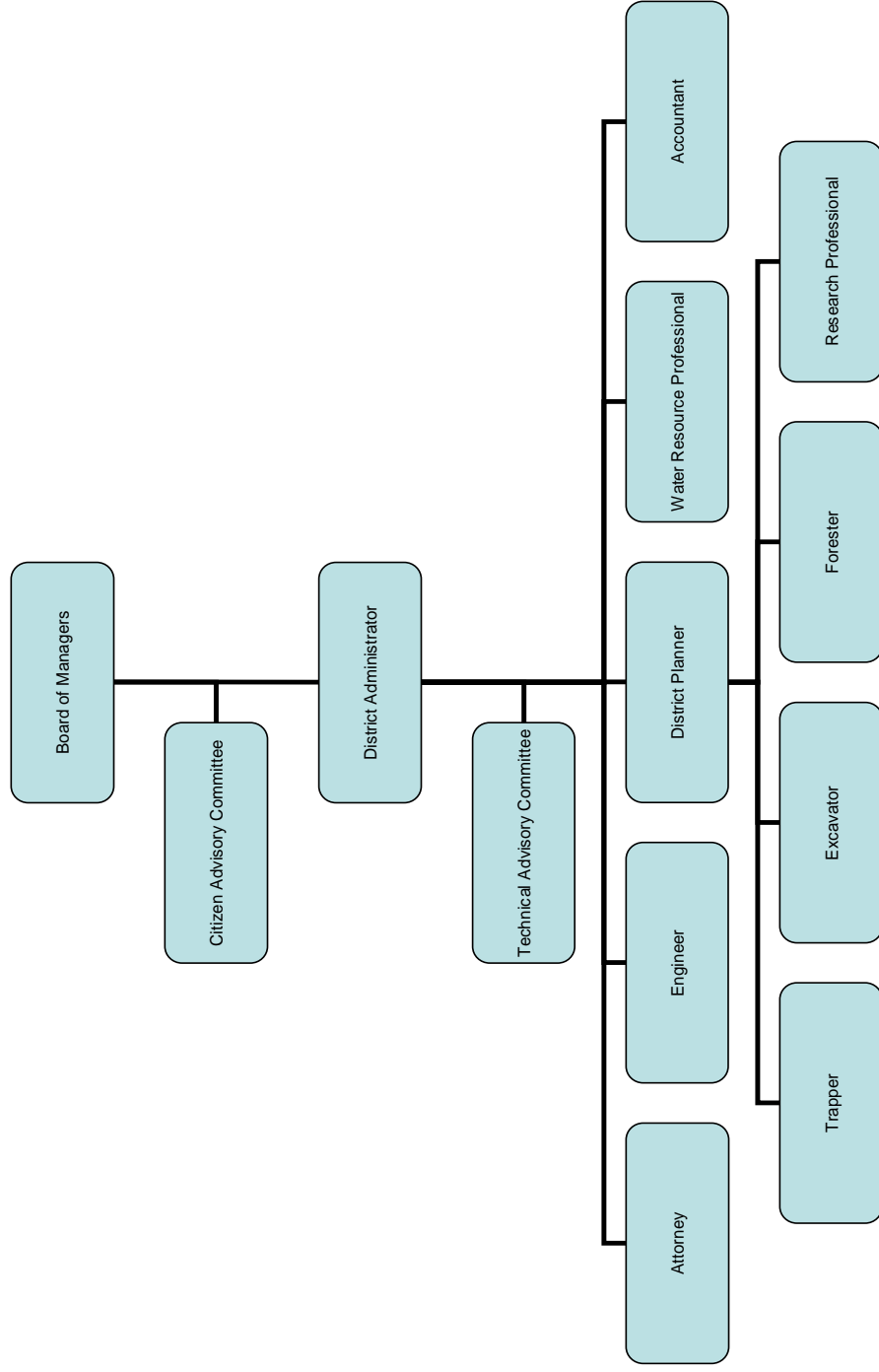
A Board of Managers administers the District. The Board is composed of five members representing different geographic areas of the District. Each Manager is

- Serves a staggered three-year term,
- Nominated by his or her local unit of government
- Appointed by the Anoka County Board.

The Watershed Board is statutorily authorized to employ professional assistants in carrying out its duties. The Board and staff provide leadership on a watershed-wide basis. Watershed-wide policy and direction are formulated and provided for field implementation through District and Municipal activities.

The current organizational structure is shown on the next page.

Coon Creek Watershed District Organizational Structure



District Business Model

As the lead agency in the watershed for water resource management, the Coon Creek Watershed District provides leadership in the protection, management and use of the water and related land resources.

The watershed uses a multiple-use land management approach to pursue eleven statutory goals (pp.17-47). To implement its mission and pursue the legislative goals, the Coon Creek Watershed District operates six programs and strategies:

1. Administration
2. Development Regulations and Issue Management
3. Operations and Maintenance
4. Planning, Programming and Budgeting
5. Public and Governmental Relations
6. Research , Monitoring, and Data Collection

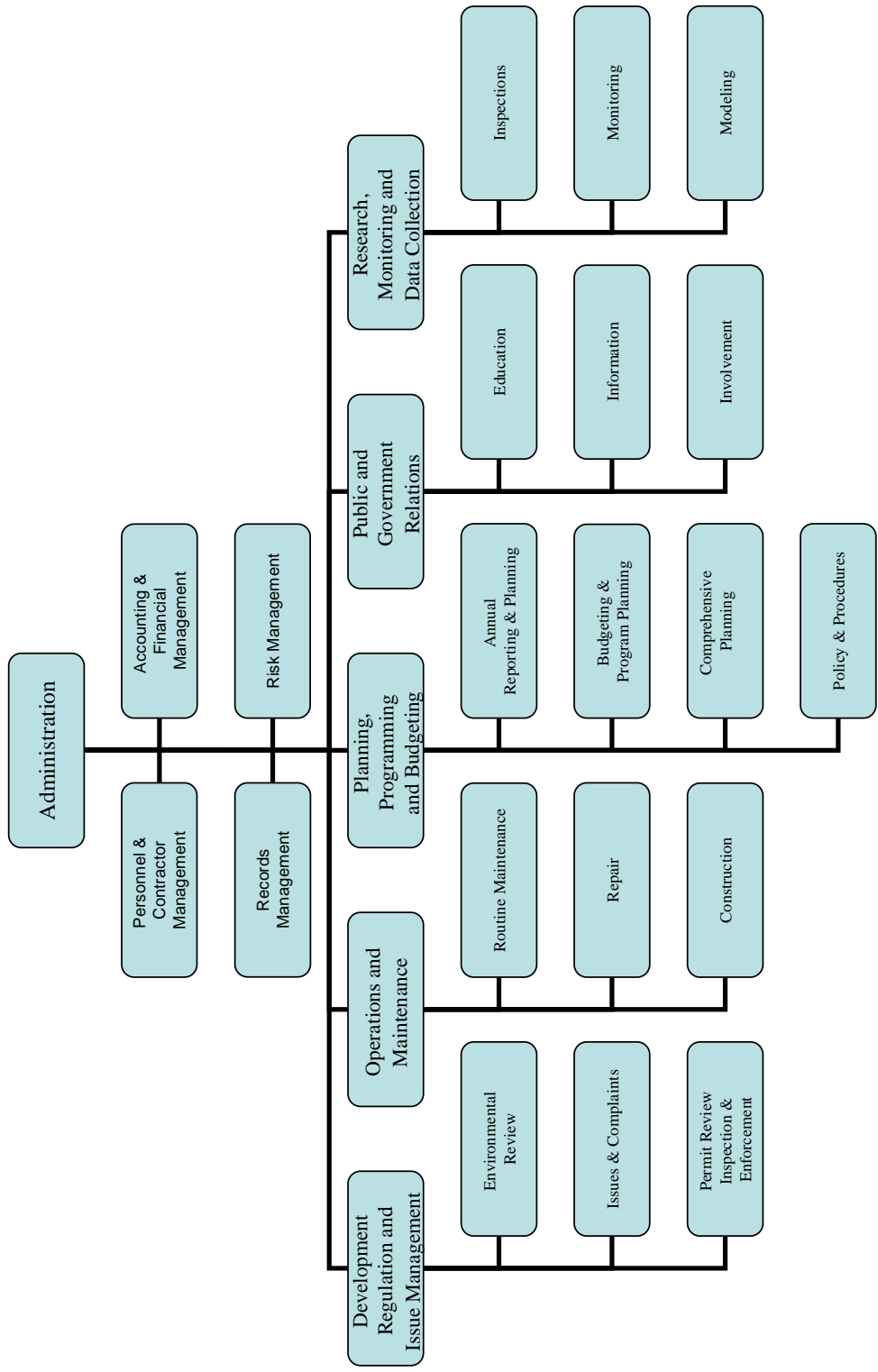
Link to District Budget

These programs have developed through strategic and comprehensive planning to provide better public service and sustainable land stewardship practices. They are also the context for budgeting and tracking District activities.

Adjustments to Comprehensive Plan

The annual goals for our 2009 Budget and Plan are based on the District Comprehensive Plan (approved by the Board of Water & Soil Resources in October, 2004) and SWPPP (received by the MPCA in May, 2006). Adjustments to some District objectives and outcomes are based upon more recent performance information and current and projected funding levels.

Coon Creek Watershed District Program and Activity Structure



ADMINISTRATION PROGRAM



Program Description

This program implements the approved policies of the Board of Managers, administers the financial affairs of the Coon Creek Watershed District, and ensures the accountability of public funds and serves the District financial needs.

Activities and Outcomes

The Administration Program consists of six activities: Board, Records, Contract and Personnel Administration, Training and Seminars, Financial Management and Risk Management.

Board of Managers

Board of Managers: Members, Officers, Contact Information and Terms

The District is governed by a Board of Managers. The Board is composed of five members representing different geographic areas of the District. Each Manager serves a staggered three-year term, is nominated by his or her local unit of government, and is appointed by the Anoka County Board.

Name		2009 Office	Appointed	Current Term Ends	Phone
Ted	Capra	Secretary	2005	2011	(763) 783-8533
Warren	Hoffman	President	2000	2010	(763) 434-5729
Bill	MacNally	Treasurer	2003	2010	(763) 951-2667
Joe	Marvin	Vice President	1993	2011	(763) 427-1131
Byron	Westlund		2006	2009	(763) 427-7500

Oath of Office

Minnesota Statute 103D.315 requires all Managers to take an Oath of Office. Each Manager is sworn in using the Oath of Office, when they are appointed. In addition, the Board re-administers the Oath of Office annually at the Board's first Board meeting of each year.

Principal Place of Business

Minnesota Statute 103D.321, Subd. 1 requires the District to designate a public facility within the watershed district as a principal place of business.

	Office
Address	12301 Central Avenue NE, Suite 100 Blaine, Minnesota 55434
Phone	763-755-0975
Fax	763-755-0283
Web	www.cooncreekwd.org
E-mail	Info@cooncreekwd.org

Records

Minutes

Minnesota Statutes 103D.315, Subd. 5 requires that the District keep records of all business done and meetings held by the Board of Managers. All Board meetings are recorded and minutes are prepared and presented to the Board for approval. Approved minutes are available at the District office and on line at [www.cooncreekwd.org/aboutus/Board information/Past Minutes](http://www.cooncreekwd.org/aboutus/Board%20information/Past%20Minutes).

Records Retention & Disposal

Adopt Records Retention & Disposal Policy and procedure

Program	Record	Retention (Yrs)	2007	2008	2009	2010	2011
Administration	Expired Service Contracts	10			≤1998	1999	2000
	Financial Details	6			<2003	2004	2005
	Employment Apps & Resumes	1			<2008	2009	2010
	Separated Personnel files	5			≤2003	2004	2005
	Timesheets	6			<2002	2003	2004
	Contracts & Leases	10			<1999	2000	2001
Operations	Bids & specs	6			≤2002	2003	2004
Planning	Budget work papers	2			≤2006	2007	2008
I&E	Conference & Workshop Info	6			≤2003	2004	2005

Meetings

The Board of Managers meets on the second and fourth Monday of each month (24 times per year). The meeting schedule is published in the Anoka County Union and on the District web site (www.cooncreekwd.org). The meeting schedule is also stipulated in the District rule. Board meeting are at:

Address Bunker Hills Activity Center
550 Bunker Lake Blvd
Andover, MN 55304

Phone 763-757-3920

Fax 763-755-0230

In 2008 the Board met 22 times. One of those meetings (July) occurred after the down turn in the development industry and was cancelled because of lack of business for the Board. The second meeting, scheduled for the Monday after Christmas was cancelled due to a lack of business and to allow for the holiday.

Outcome	2007	2008 Forecast	2008 Actual	2009 Forecast	2010 Forecast	2011 Forecast
Number of Meetings	20	23	22	22	22	22

Board Business

The Board of Managers reviewed and acted on 252 separate items of business in 2008. These actions were down slightly (-4%) from 2007. The greatest change was seen in permit reviews (-20.5%) as a result of the downturn in development.

Outcome: Agenda Items	2007 Actual	2008 Forecast	2008 Actual	2009 Forecast	2010 Forecast	2011 Forecast
Policy	137	150	144	140	145	145
Permit Review	83	80	66	60	65	67
Discussion	27	25	28	27	27	27
Information	16	15	14	15	15	15
Total	263	270	252	240	252	254

Official Paper

Minnesota Statutes 103D requires that under certain circumstances, the District notice its meetings, hearings, and decisions. To meet the District goal of keeping the public informed District business is always noticed in the Anoka County Union & Shopper, Inc. (Anoka Union, Blaine Life, and Coon Rapids Herald)

Personnel

<u>Staff - 2008</u>	<u>Position</u>	<u>FTE</u>	<u>Years of Service</u>	<u>2008 Training (Hrs)</u>
Tim Kelly	District Administrator	1.0	18.9	6
Diana Shonyo	Administrative Assistant	1.0	0.5	0
Dawn R. Doering	Information and Education Coordinator	1.0	2.7	87
Ken Zeik	Water Resource Professional	1.0	5.0	36
Tom Gile	Regulatory Affairs Coordinator	1.0	0.5	56
VACANT	Hydrologist GPS/GIS Coordinator			

District Attorney

Michelle Ulrich
1561 Lincoln Ave.
St. Paul, MN 55105
651-699-9845

District Engineer

Ed Matthiesen
Wenck Associates, Inc
1800 Pioneer Creek Ctr.
PO Box 249
Maple Plain, MN 55359-0249
(763) 479-4200

Solicitation of Interest Proposals for Service Providers

The District employs six technical service providers. Minnesota Statutes 103B requires that the District *solicit interest proposals for legal, professional, or technical consultant services before retaining the services of an attorney or consultant or extending an annual services agreement at least every two years.*

Solicit interest proposals (SIP)
Request Service Proposal (RFP)
Review Rates (RR)
Review Services (RS)

Service	Provider	2007	2008	2009	2010	2011
Accounting	Anoka County	RS		RS		RS
		RR		RR		RR
Engineering	Wenck & Associates	RS	RS	SIP	RS	SIP
		RR	RR		RR	
Legal	Michelle Ulrich	RR	RR	SIP	RR	SIP
Water Quality	Anoka Conservation District	RS	RS	RS	RS	RS
		RR	RR	RR	RR	RR
Trapping	Rick Johnson	SIP		SIP		SIP
Tree Services	P & C Tree Service	SIP		SIP		SIP

Financial Management

Official Depository

Minnesota Statutes 103D.351 requires the District to report its financial transactions, and Minnesota Statutes 103D.925 authorizes the District to issue warrants for payment of contracts and general expenses. To accomplish both payment, and reporting, the District must have a depository for its funds and uses the US Bank as its official depository.

Fund Equity

In the 2003 and 2004 audits, the State Auditor expressed concern about the size of the fund balances/fund equity being held by the District and recommended that:

1. Fund equity amounts be reviewed annually
2. The Board approves these designations, with acknowledgement in the minutes.

Task	2007	2008	2009	2010	2011
Annual Review of Fund Equity	1/8/07	1/14/08	1/12/09		
Board approval of fund equity designation	1/8/07	1/14/08	1/12/09		
Amount	309,000	310,000	350,000		
Acknowledgement in Minutes	Yes	Yes	Yes	Yes	Yes

Annual Financial Audits

The District utilizes the Minnesota State Auditor to perform the annual audit. Generally the audit team is the same as Anoka County's. The timing of the District's audit is subject to the work load and availability of the State Auditor.

Task	2007	2008	2009	2010	2011
Status	Draft	Ordered	Yes	Yes	Yes
Ordered	2/25/08	1/12/09			
Entrance Interview	9/11/08	2/13/09			
Board review of Auditors comments	2/23/09				
Final Audit					

Audit Year	Issues	Need	2007	2008	2009	2010	2011
2004	Capital Assets Retirement (04-01)	Retire assets that are fully depreciated	Not Resolved	Resolved			
2005	Accounting of Escrows (01-02)	Closer Coordination with Anoka County Finance – Escrows	Not Resolved	Not Resolved	Resolve		

Audit Year	Issues	Need	2007	2008	2009	2010	2011
2006	Preparation of Financial Statements (06-01)	Internal preparation of annual financial statements	Not Resolved	Not Resolved	Resolve		
2007	Audit Adjustments (07-01)	Ensure that financial reports adjustments are reported according to GAAP		Not Resolve	Resolve		

Financial Condition of The Watershed District

Assets	YE 2006 Amt	Pct	Chng	YE 2007 Amt	Pct	Chng
Cash & Investments	2,639,345	98%	22%	930,324	94%	-65%
Receivables	6,182	0%	-55%	20,482	2%	231%
Due from Other Governments	19,895			24,907	3%	25%
Fixed Assets	21,304	1%	-25%	18,124	2%	-15%
Total Assets	2,686,726	100%	43%	993,837	100%	-63%
Liabilities						
Accts Payable	767	0%	-96%	1,859	0%	143%
Contracts Payable	16,216	1%	-43%	17,182	1%	6%
Salaries Payable	4,129	0%	26%	6,260	0%	52%
Due to Other Governments	77,058	4%	48%	59,278	4%	-23%
Deferred Revenue	13,435	1%	128%	20,482	1%	52%
Funds Held in trust	1,727,421	94%	48%	1,568,554	94%	-9%
Compensated Absences		0%	-100%		0%	#DIV/0!
Total Liabilities	1,839,025	100%	41%	1,673,615	100%	-9%
Fund Equity						
Investment in Gen fixed Assets	21,304	3%	-47%	18,124	-3%	-15%
Fund Balances	826,397	97%	55%	-697,902	103%	-184%
Total Fund Equity	847,701	100%	48%	(679,778)	100%	-180%
Total Liabilities & Fund Equity	2,686,726	100%	43%	993,837	100%	-63%

An Assessment Of Changes In Fund Balances & Expenditures

	Fund	509	Operations &	Total: Proj 08
	Administrative	Management	Maintenance	
Fund Balance 1/1/08	(18,240.15)	837,856	57,766.59	\$ 877,382
Taxes Receivable	\$ 260,000	\$ 407,848	\$ -	\$ 667,848
Other Income	\$ 274,617			
Total Income	\$ 516,377	\$ 1,245,704	\$ 57,767	\$ 1,545,230
Operating Costs				
Salaries & Wages	121,491	129,150		250,641
Benefits	49,853	19,268		69,121
Professional Services	63,600	228,249		291,849
Operating Expenses	25,924	57,467		83,391
Routine Maintenance	20,967	36,321	3,878	61,166
Repair	-	143,200	80,907	224,107
Construction	-			0
Monitoring	1,500	27,040		28,540
Other Program Costs	443	3,128		3,571
Capital Equipment	3,086	10,047		13,133
Total Operating Cost-Balance	286,864	653,870	84,785	1,025,519
Year-End Fund Balance 12/31/08	\$ 229,513	\$ 591,833	\$ (27,018)	\$ 794,328

Development Regulation and Issue Management Program



PROGRAM DESCRIPTION

The Purpose of development regulation is to evaluate, permit and monitor plans and programs affecting the water and related land resources of the Watershed District in an orderly and informed fashion.

The Development Regulation and Issue Management Program consist of five activities:

1. Environmental Review, which includes comments on DNR and Corps of Engineers Permits.
2. Issues and Complaints
3. Permit Inspection and Enforcement
4. Permit Review
5. Permits

Environmental Review



Description

This activity reviews and comments on plans, permits, assessments and studies issued by Federal, state and local units of government for the completeness, accuracy and consistency of water resource proposals relative to the Districts goals, objectives and standards

Measures	2007	2008	2009	2010	2011
Number of Environmental Reviews	3	2	3	2	3
DNR Permits	1	2	2	2	2
EAWs	Feela	1) Hwy 10, 3rd Lane Addition 2) Sports Town USA			

Issues and Complaints



Description

This activity investigates and responds to unanticipated and unplanned circumstances, events or conditions that may affect the Water and related land resources of the watershed or District operations.

2008 Issues

Measures	2007	2008	2009	2010	2011
Bank Stabilization	1	0	2	3	4
Beaver	10	15	10	7	10
Compliance	23	17	20	20	20
Emergency Work	1	1	1	0	1
Maintenance	7	1	3	5	7
Easement	3		1	2	2
Erosion	11	13	10	9	9
Flooding	2	3	2	5	3
Obstruction & Trees	22	19	20	15	20
Other	2				
Water availability	2	3	3	5	5
Water quality	1	5	5	3	5
Total Issues	84	76	75	73	85

Permit Inspection and Enforcement

Description

This activity ensures compliance with permit requirements and the goals, objectives and rules of the District. The activity is intended to:

1. Ensure that the approved plan is implemented
2. Provide the landowner with technical assistance as needed
3. Provide a means to determine if changes to the plan are necessary
4. Observe and document deviations from the plan as they occur
- 5.

Violation	2007	2008	2009	2010	2011
Number of Inspections	84	133	125	125	125

Enforcement Issues

Violation	2007	2008	2009	2010	2011
Failure to comply with permit or approved plan	1	0	2	2	2
Failure to maintain or repair BMPs or STPs	0	0	1	2	2
Failure to maintain site in Good condition	0	0	1	2	3
Failure to meet standards	4	6	5	5	5
Failure to use BMPs to stop erosion & sedimentation	2	2	3	4	4
False information	0	0	0	1	1
Illicit Connection	0	0	1	2	2
Illicit Discharge	0	0	0	1	0
Obstruction	2	0	1	1	1
Submittal of As Built	0	0	0	0	0
Wetland Drainage	0	0	0	0	0
Wetland Excavation	1	0	1	1	1
Wetland Fill	10	4	5	5	5
Work without a permit	4	1	4	5	5
Total	24	13	24	29	31

Permit Review



Description

This activity involves public review of permit applications and findings relative to the District's standards. It involves monitoring, evaluating and permitting plans and programs affecting the water and related land resources of the District.

Measure	2007	2008	2009	2010	2011
Number of Pre-application meetings	21	19	15	12	12
Number of Permit Applications	115	78	75	70	70
Number of Permit Reviews by Board	86	67	60	65	65

Permits

Description

This activity regulates land-disturbing activities affecting the quality, course, current or cross section of ditches and watercourses

Measure	2007	2008	2009	2010	2011
Number of Pre-Construction Meetings	22	16	15	15	15
Number of Best Management Practices	75	107	100	100	100
Certificates of No-Loss	0	1	0	1	1
WCA Exemptions	0	0	0	0	0
Variances	0	0	0	0	0
Permits	20	20	22	22	22
Permit Renewal/Extension	1	1	2	2	2

Operations and Maintenance Program



Tornado clean up on Sand Creek (Ditch 41) Blaine & Coon Rapids May 2008

PROGRAM DESCRIPTION

The purpose of the Operations and Maintenance program is the planning, design, construction and maintenance of the District's ditch system and water control structures and to preserve the location, character and extent of the District's ditch and conveyance system.

Program consists of the following activities:

1. Annual Inspections
2. Construction
3. Repair
4. Routine Maintenance
5. Demonstration Projects

Annual Inspections



Culvert inspection Ditch 58

Description

The purpose of the annual inspections is to assess the general condition of the entire drainage system for identification of maintenance needs. Inspections vary in detail and can range from a windshield inspection of the District's public drainage system to shooting elevations and cross sections every 100 feet, photographing ditch channel and comparison to established performance standards based on a ditch's functional classification.

Measure / Outcome

Measures	2007	2008	2009	2010	2011
Inspect 20 % of the system	Ditch 44 Ditch 11	Ditch 58 Ditch 60	Ditch 39 Ditch 59	Ditch 37 Ditch 41	Ditch 20 Ditch 54 Ditch 57
Feet Inspected	61,393	61,500	65,732	65,100	68,707
Miles Inspected	11.6	11.6	12.4	12.3	13.0
Crooked Lake Outlet	No	Yes	Yes	Yes	Yes
Lake Andover	No	Yes	Yes	Yes	Yes

Outlet					
Ditch 58 Structures	Yes (2)	Yes (3)	Yes (3)	Yes (3)	Yes (3)

Construction



Kar bank stabilization spring 2008

Description

This activity includes the new construction of drainage facilities or the increase in capacity of existing systems. The Coon Creek Watershed District may fund Creek and ditch bank stabilization through a process involving inspection, diagnosis of cause and design of a stabilization method which gives preference to bioengineering, a determination of problem significance and contracting work.

Measures	2007	2008	2009	2010	2011
Number of	6	0	2	2	2
Bank Stabilization	-Kar -Munson -Andover -BNRR -Prairie Rd		-Creekside Trailer Park	-East River Rd/Lower Coon Creek	-Sand Creek

	-S Coon Ck Dr				
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Repair



Tornado clean up Coon Rapids, May 2008

Description

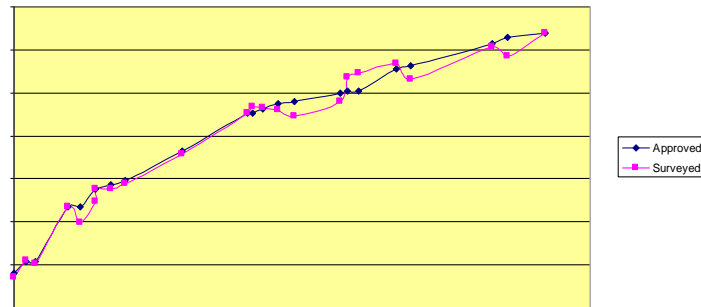
Activity involves restorative construction work typically involving forestry practices and or heavy excavating equipment. The intent of the activity is to restore all or a part of a drainage system as nearly as practicable to the same condition as originally constructed and subsequently improved.

Measures	2007	2008	2009	2010	2011
Number of Projects	1	1	2	2	2
Projects	Ditch 44	Ditch 41/ Sand Creek tornado clean up	Ditch 58 Ditch 60	Ditch 39 Ditch 59	Ditch 37 Ditch 41

Ditch 58

In December 2008 the inspection report for Ditch 58 showed the following work needing to be done:

1. Bring Storage World / Flamingo Terrace into compliance
2. Re-measure Stations 11, 13-19 inverts to ensure accurate measurements
3. Analyze effect of improper culvert sizes and elevations
4. Contact property owners to remove obstructions between Stations 8-9



Ditch 60

The November 2008 inspection report indicated the following work needing to occur:

1. Ensure proper sizing and placement of Culverts at Jefferson St and Main St
2. Clear Obstruction at Taylor Street
3. Clear areas of Heavy Channel Vegetation



0 0.05 0.1 0.15 0.2 Miles



Routine Maintenance



Description

This activity addresses to ensure the flow of water in a manner that does not create threats to the public health, safety or welfare.

Program activities include the following:

Measures	2007	2008	2009	2010	2011
Number of					
Beaver	18	19	19	20	20
Obstructions	7	7	7	10	10
Trees	22	23	23	35	25
Projects	2	4	2	2	2
Project Names	Tree removal Ditch 39	1)Down fall, Lower Coon Creek 2)Ditch 41-8 x Ditch 60-1 Tree removal 3) Ditch 58 at Crosstown Tree removal 4)Tree removal Ditch			

Demonstration Projects



Blaine City Hall Pervious Concrete Fire Truck Turn Around

Description

Demonstration projects involve the application, construction or installation of new or innovative practices to treat water quality. The District will encourage and may contribute funding to such projects.

Measures	2007	2008	2009	2010	2011
Number of Projects		3	2	3	3
Project Names		1) Blaine City Hall Fire Barn Pervious Concrete & Rain garden 2) Ultrasonic Treatment of 2 Stormwater Ponds 3) Club West trail rain gardens	1) <i>Crooked Lake rain gardens</i>		

Stormwater Retrofit Reconnaissance & Design

A detailed review (reconnaissance) of a subwatershed to determine the most cost-effective projects that could be realistically installed to improve water quality in the receiving waterbody (lake or stream). This process includes identifying the neighborhoods with the poorest storm water treatment measures, finding locations for improvement projects, and designing projects that will remove pollutants of concern or better manage storm water volumes or rates. This work brings these projects to a “construction-ready” status once the appropriate approvals and funding are received.

The goal of the project is to identify the most cost-effective opportunities to retrofit the stormwater conveyance system to improve water quality, reduce storm runoff volumes, and manage stormwater rates of discharge. The end result is better water quality and fewer flooding and erosion problems.

Components include:

1. **Identify and prioritize sub watersheds** that contribute the greatest to water quality degradation. Stream monitoring results, non-degradation reports, existing models, and stormwater conveyance maps from cities will be used to identify the focus areas for subsequent work. Generally, a focus area of approximately 0.5 square miles will be selected.
2. **Map BMP retrofit potential** within neighborhoods of the highest priority sub watersheds utilizing methods in the “Urban Stormwater Retrofit Practices” manual (Center for Watershed Protection, 2007).
3. **Design retrofit projects**, primarily involving decentralized rain gardens, neighborhood-scale infiltration basins, vegetative swales, grit separators, and multi-chamber treatment trains. Designs will include full sketches and cost estimates such that the projects, when funded and approved by the necessary parties, are ready for construction. Additionally, other lower priority opportunities, which are not fully designed, will be described and shown on maps in reports.
4. **Calculate pollutant removals** for each design.
5. **Report** results to the Coon Creek Watershed District and cities where the work occurred.

Planning, Programming and Budgeting Program



PROGRAM DESCRIPTION

The purpose of the program is to coordinate the planning, prioritizing and financing of the District's programs and activities

The planning program consists following activities:

1. **Annual Assessment, Reporting and Planning**
2. **Budgeting and Program Planning**
3. **Comprehensive Planning**
4. Policy and Procedures

Annual Assessment, Reporting and Planning

Description

This activity presents basic statistics on the accomplishments and/or progress of District operations and activities in pursuing and achieving goals. It serves as the basis for accountability through quarterly objectives and through financial and program goals. Overall the activity provides context for understanding the physical, social and managerial trends and concerns affecting the District that may not have been anticipated in the Comprehensive plan and the basis for accountability.

Specific tasks under this activity involve preparation of an annual report and work plan for implementing the District's Comprehensive Plan approved by the BWSR and the District's Storm Water Pollution Prevention Plan (SWPPP) approved by the MPCA

Measures	2007	2008	2009	2010	2011
Number of					
Annual Report & Plan Approved	Yes	Yes	Yes	Yes	Yes
MPCA Annual Report Approved	Yes	Yes	Yes	Yes	Yes

BWSR Performance Review

In 2008, the Board of Water and Soil Resources (BWSR) implemented a pilot Level II Performance Review and Assistance Program (PRAP). The Level II review focused on the extent to which the Coon Creek Watershed District has accomplished the objectives set forth in our Comprehensive Plan during the previous five years.

The review found that the CCWD is making good progress in the implementation of the comprehensive watershed management plan. The District is efficient in its administrative, planning, execution and communication-coordination functions. The district's annual reports and work plans provide good documentation of progress and the trends, issues and needs facing the district.

Budgeting and Program Planning

Description

The budget process and resulting budget, describes the programs and projects the public will fund in pursuing the District's mission

The budget process involves 11 steps detailed in District policy which begin with adoption of a budget calendar, involves a review of the District's strengths and weaknesses and operating environment, a tour of past and potential projects, public review and ends with a public hearing and adoption of the succeeding year's budget in September.

Measures	2007	2008	2009	2010	2011
Budget Calendar	3/12/07	5/23/08	4/13/09	4/12/10	4/11/11
Review of Financial Status	4/23/07	5/27/08	4/27/09	4/26/10	4/25/11
Review Program Goals & Commitments	4/9/07	5/27/08	4/27/09	4/26/10	4/25/11
Annual Report	5/14/07	6/13/08	3/23/09	3/22/10	3/21/11
Establish Budget Guidelines and Assumptions	5/28/07	6/27/08	6/22/09	6/14/10	6/13/11
District Tour	6/18/07	7/18/08	7/20/09	7/19/10	7/18/11
Project & Program Initiatives	6/25/07	7/25/08	7/27/09	7/26/10	7/25/11
Budget Review and Deliberation	7/23/07	8/8/08	8/10/09	8/9/10	8/8/11
Advisory Ctty Review and Comment	8/14/07	8/15/08	8/11/09	8/10/10	8/9/11
Public Hearing & Budget Adoption	9/10/07	9/12/08	9/14/09	9/13/10	9/12/11
Levy Certification	12/10/07	12/12/08	12/14/09	12/13/10	12/12/11

Comprehensive Planning

Description

The Comprehensive plan takes its direction from Minnesota law and the District's mission statement. It is the guiding document for program and capital facilities management and provides context and purpose to near-term choices and assesses the future consequences of those choices.

Tasks under this activity involve maintaining and updating the District's Comprehensive Plan required under the Watershed Act (103D) and the Metropolitan Water Management Act (103B) and the District's Storm Water Pollution Prevention Plan (SWPPP) which serves as the District's NPDES permit under the Federal Clean Water Act

Measures	2007	2008	2009	2010	2011
Comprehensive Plan					
Updates to land uses & cover	Nondegradation Study/Water Quality Report Purchased ARC/ARCVIEW		Geographic Information System Initiative		
Updates to the hydrology of the watershed	Update P8 Model	Infiltration Study XP-SWMM Update	TP-40 Input, Precipitation Analysis	Evapotranspiration Study Soil moisture study	
Ditches & Watercourses	Ditch 11	Electronic Ditch Profiles Ditch 58 Ditch 60	Electronic Ditch Profiles Ditch 39 Ditch 59	Electronic Ditch Profiles Ditch 37 Ditch 41	Electronic Ditch Profiles Ditch 20 Ditch 54 Ditch 57
Floodplains		XP-SWMM Update	XP-SWMM Calibration	COE & FEMA Review	
Groundwater			Anoka County Groundwater Assessment Geologic	Geologic Atlas	

Measures	2007	2008	2009	2010	2011
			Atlas		
Soils				Soil moisture study	
Stormwater		XP-SWMM Update	National Sports Center	The Lakes	
Subwatershed Plans	Ditch 11 Ditch 44	Crooked Lake	Ditch 60	Ditch 39 Ditch 59	Ditch 37 Ditch 41
Water Quality		Crooked Lake	National Sports Center	The Lakes	
Wetlands	BWSR/DNR Wetland Restoration Strategy		MR 8420 Update	Functional Capacity Study	
Lakes		Crooked Lake	Crooked Lake Wrap up	The Lakes	The Lakes Wrap up Ham Lake
Wildlife					
Plan Amendments					
Boundary	Upper Rum WMO in Ham Lake	Rice Creek WD	Upper Rum WMO in Andover	Six Cities WMO in Blaine & Coon Rapids	
Rule	Rule Update	Draft Rules	Adoption		
NPDES Permit					
Storm Water Pollution Prevention Plan (SWPPP)	9/11/07 Corrections & Additions				Permit expires, Prepare new SWPPP
Nondegradation/ Water Quality Plan	6/07				
Impaired Waters Study/TMDL			X		
Tiered Aquatic			Participate in	X	Rule

Measures	2007	2008	2009	2010	2011
Life Uses (TALU)			workgroup		Development
Watershed Approach			Participate in workgroup	X	
Watershed Subcommittee - Stormwater Steering Committee	X	X	X	X	X

Local Water Planning

The District reviews and either comments or approves a variety of local water planning efforts:

Local Water Plan: Required by the Metropolitan Water Management Act (Must be consistent with the Watershed District's Comprehensive Plan.

Stormwater Management Plan: Stormwater chapter required as part of the City Comprehensive plan.

Stormwater Pollution Prevention Plan (SWPPP): Required by the NPDES program under the Federal Clean Water Act.

Nondegradation/Water Quality Plan: Required under the NPDES program under the Federal Clean Water Act.

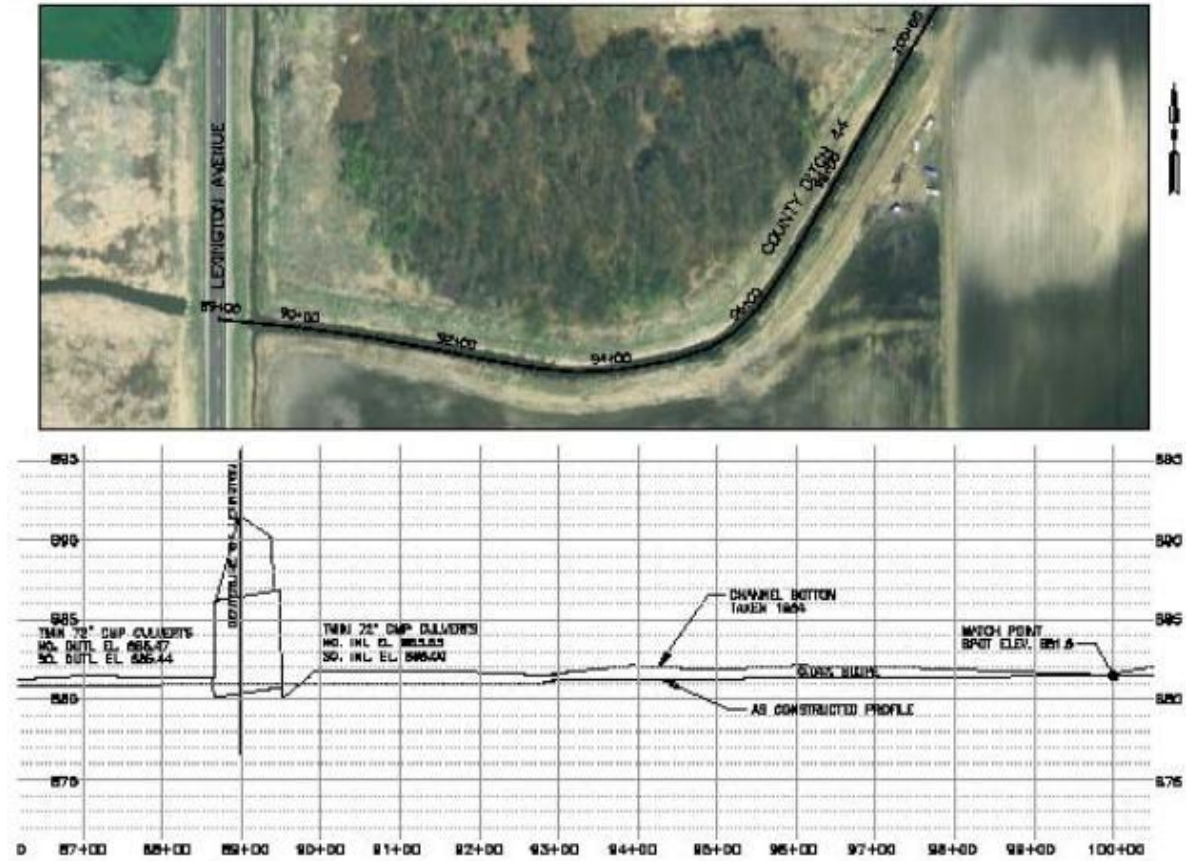
City	2007	2008	2009	2010	2011
Andover	Wellhead Protection Plan Nondegradation Report	Comprehensive Plan Stormwater Update	Stormwater Management Plan Local Water Management Plan	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan
Blaine	Wellhead Protection Plan Nondegradation Report	Comprehensive Plan Stormwater Update	Stormwater Management Plan Local Water Management Plan	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan
Columbus		Comprehensive Plan	Comprehensive Plan	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan
Coon Rapids	Wellhead Protection Plan Nondegradation Report	Comprehensive Plan Stormwater Update	Stormwater Management Plan Local Water Management Plan	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan
Ham Lake		Comprehensive Plan	Local Water Management Plan/SWPPP	Participate in CCWD Comp Plan	Prepare new SWPPP

				Development	& Local Water Plan
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Local Water Plan Status

Plan	Andover	Blaine	Columbus	Coon Rapids	Ham Lake
Local Water Management	2005	2009	2009	2003	2009
Stormwater Management	2009	2009	2009	2003	2009
SWPPP	2006	2006		2006	2006
Nondegradation Report	2007	2007	Not Required	2007	Not Required
Wellhead Protection	2007	2008	Not Required No public wells	2007	Not Required No public wells
Wetland Management				2004	

Electronic Ditch Profiles



Description

Electronic media is rapidly becoming the standard of design and planning through GIS and CAD. All of the public ditches need to be converted to electronic format. Plan sets are registered to CAD and GIS with current elevations and airphotos. Plan sets not reviewed and approved by DNR would be submitted. This would be a 5 year program, coordinated with our NPDES inspection requirements

	2007	2008	2009	2010	2011
Ditch		Ditch 11 Ditch 44	Ditch 58 Ditch 60	Ditch 39 Ditch 59	Ditch 20 Ditch 37 Ditch 41

Plan Status

Ditch	Constructed	Approved Plan	Complete Plans	Working Plans	Electronic Plan Set
11	1891		*		2008
20	1893	*			2011
23	1895		*		2013
37	1900		*		2011
39	1902			*	2010
41	1904	*			2011
44	?			*	2008
52	1910				2012
54	1915	*			2012
57	1917	*			2012
58	1917	*			2009
59	1918	*			2010
60	1918		*		2009

Policy and Procedures

The policy and procedures manual is intended to provide guidance, continuity and consistency in District operations and activities. The manual is the principal source of specialized guidance and instruction for carrying out the direction issued in the program handbook. The manual may include significant procedural direction.

The program manual provides guidance, continuity and consistency in District operations and activities. It contains the legal authorities, objectives, policies, responsibilities, instructions and guidance needed on a continuing basis by District staff to plan and implement assigned programs and activities

Measures	2007	2008	2009	2010	2011
Number of					
Policy & Procedure Manual	1	1	1	1	1
Policies		Revise Bill payment procedure	Records Retention and Disposal		

Geographic Information Systems

Task	Due	Resp	Numb
Inventory existing data	31-Mar	BH	
Create new directory structure	31-Mar	BH	
Create list of needed data and acquire data	31-Mar	BH	
On-site presence	31-Mar	BH	
Administrative Handbook	31-Mar	BH	
Install Ranger Dashboard	31-Mar	BH	
Mapping Templates	31-Mar	BH	
Create GIS ONESTOP with Map Archive	30-Jun	BH	
Create top priority new datasets	30-Jun	BH	
Prioritize creation of new datasets	30-Jun	BH	
Create Web Mapping site	30-Jun	BH	
Complete metadata	30-Jun	BH	
Enhance web mapping site	30-Dec	BH	
Maintain data and maps	30-Dec	BH	
Use GIS for analysis and modeling	30-Dec	BH	
Prioritize advanced GIS projects	30-Dec	BH	
Special GIS projects	Due	Resp	Priority
Boundary Upper Rum WMO in Ham Lake	31-Mar	BH	1
Boundary Rice Creek WD	31-Mar	BH	2
Crooked Lake EWM Treatments	30-Jun	BH	3
Boundary Upper Rum WMO in Andover	30-Sep	BH	4
Bank Stabilization Records	30-Sep	BH	5
Ditch Inspection & Maintenance Records (Web based?)	30-Sep	BH	6
Ditch Plans & Alignments	30-Sep	BH	7
Geologic Atlas	30-Sep	BH	8
Wetland Geomorphology	30-Dec	BH	9

Information and Education Program



2008 Coon Creek

Clean-Up Event

PROGRAM DESCRIPTION

The purpose of the public and governmental relation program is to ensure that the continuing planning and management of the Coon Creek watershed is responsive to the needs and concerns of an informed public and to coordinate policies and programs of the local, state and federal government agencies to achieve consistency with the plan.

A program consisting of three activities has been developed to carry out the District's policies. The components are:

1. Education
2. Information
3. Involvement

In practice, overlap will occur among these three components; all information is educational in nature, and education requires involvement.

Education



Local Storm drain Stenciling Project, October 2008

Description

Greater public awareness of the watershed's water resources; the appropriate use of water resources; and the issues and conflicts that arise when managing those resources are major needs of the District. Increasing awareness is the first step in enhancing the public's commitment to sound natural resource management. The District also makes several presentations each year to high school students and civil organizations. These presentations focus on the establishment of the District, its purposes and policies, and the issues facing the watershed. The response from these groups has been more positive since the discussion was redirected from a scientific evaluation of District issues to a more policy-oriented approach.

The District's education activities involve:

Measures	2007	2008	2009	2010	2011
Number of Conferences	5	5	5	5	5
Total public education efforts	84	87	89	90	92
Number of presentations	2	2	2	3	3
Number of materials/events	20	21	22	25	25
Number Education Grants	1	4	5	5	6
		- Pond Study Kits -Fishing Line Recycling			

Measures	2007	2008	2009	2010	2011
		-Water Quality Activity pack -Stormdrain stencil			

Information

Homepage of new Website published May 2008

Description

Public information is essential in any public capital or regulatory program. It is also a prerequisite to both public education and public involvement. To be able to participate and to sense when that participation will be most effective, individuals must first know the issues and the decisions to be made.

Means

Measures	2007	2008	2009	2010	2011
Number of articles	17	18	20	20	20
Number of pre-application conferences	27	28	24	24	24
Number of	13	13	14	15	15

Measures	2007	2008	2009	2010	2011
presentations					
Web Site Visits		12,000	36,000	48,500	50,500

Involvement



**Crooked Lake Management Plan Public Workshop,
March 2008**

Description

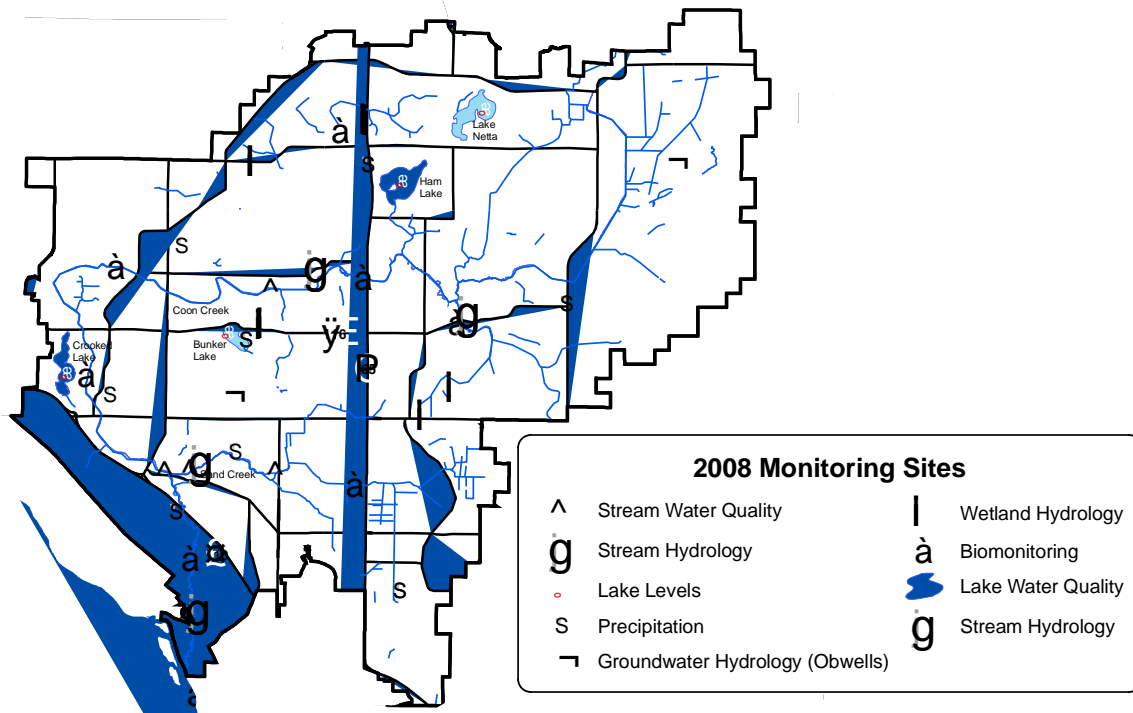
The purpose of this activity is to provide for active involvement of the public and related units of government in developing and implementing water management plans and activities

Means

Measures	2007	2008	2009	2010	2011
Number of Technical Advisory Committee meetings	6	6	6	6	6
Number on agenda distribution list	43	48	50	50	55
Completed SWPPP Review meeting	Yes	Yes	Yes	Yes	Yes
Number of CAMP participants	1	1	1	1	1
Number of Planning Workshops/Reviews	4	10	10	10	10
Coon Creek Clean-up	Yes	Yes	Yes	Yes	Yes
Number of Hearings	3	3	4	4	3
Number of issues on Hot Line	77	79	82	80	80
Number of contacts	12	20	15	12	6

Measures	2007	2008	2009	2010	2011
with Lake Association					
Number of Local Plans reviewed	6	5	8	0	5
Number of open mike presentations	0	0	1	1	0
Number of Technical Evaluation Panel meetings	14	14	15	15	15
Number of Board Meeting per year	19	21	23	23	23

Research, Monitoring and Data Collection Program



PROGRAM DESCRIPTION

The purpose of the research and data collection program is to gather and analyze data that will result in increased efficiency and effectiveness of District programs

The research, monitoring and data collection program provides integrated resource information used in planning, evaluating and decision making within the Coon Creek Watershed District. Program activities include:

1. Modeling
 - a. Hydrology – XP-SWMM
 - b. Water Quality – P8
2. Monitoring
 - a. Precipitation
 - b. Stream
 - i. Hydrology
 - ii. Water quality
 - iii. Biology
 - c. Lakes
 - i. Hydrology
 - ii. Water quality
 - d. Wetlands
 - i. Hydrology
 - ii. Biology/Vegetation

District planning, regulatory and project decision-making depends upon scientifically credible and accurate resource information. This data allows resource managers to make scientifically based management decisions. These are all essential to effective resource management.

Modeling

Description

This activity models the hydrology of surface water flows within the watershed to provide an accurate simulation of the District's hydrology and water quality for assessing and determining management needs and actions. The activity also involves assessing the overall hydrology of the Watershed to gain insight into factors affecting surficial ground water levels and the amount of water lost to potential evapotranspiration (PET).

Measure / Outcome

Model	2007	2008	2009	2010	2011
XP-SWMM		Update			Update
P8	Developed				Update
Water Budget			Update/Refine		Update

Monitoring

Description

The purpose of this activity is to monitor and track various qualitative and quantitative aspects of the watershed's hydrology to calibrate models, assess for signs of potential impairment of water resources. Specifically the District monitors the following

Precipitation

Ditch/Stream

Hydrology

Water Quality

Biology

Lake

Hydrology

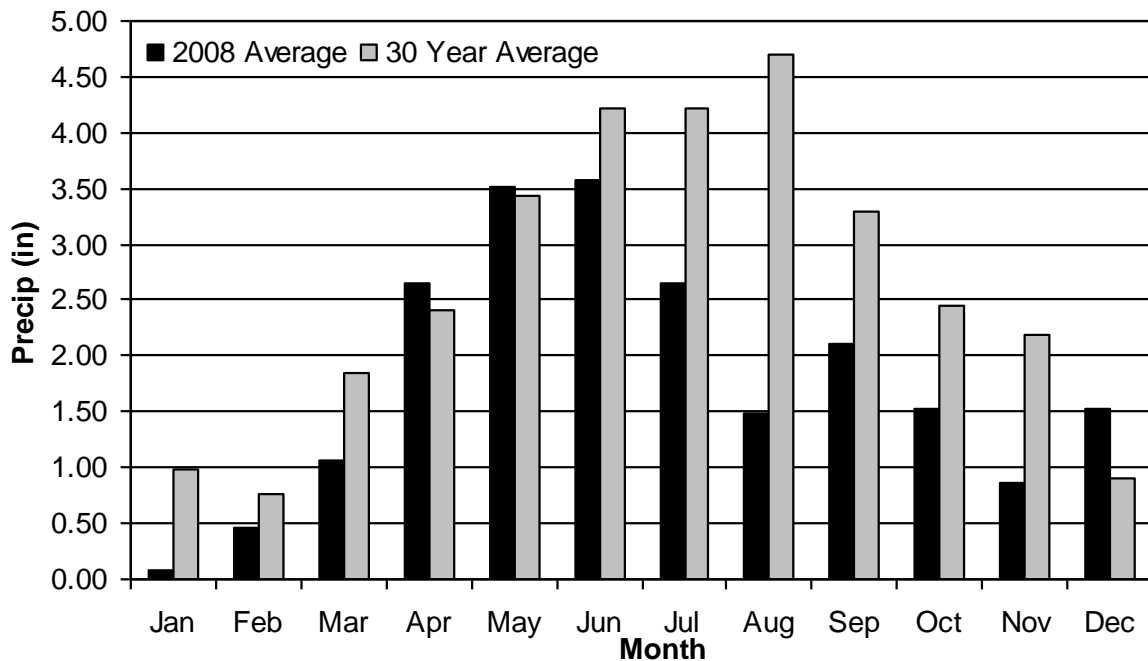
Water Quality

Wetlands

Hydrology

Vegetation

Precipitation Monitoring



Coon Creek Watershed 2008 Precipitation Summary, Average of all Rain Gauges

Description

Continuous monitoring of precipitation with both data-logging rain gauges and non-logging rain gauges that are read daily by volunteers. Rain gauges are placed around the watershed in recognition that rainfall totals and storm phenology vary over distance, and these differences are critical to understanding local hydrology, including predicting flooding.

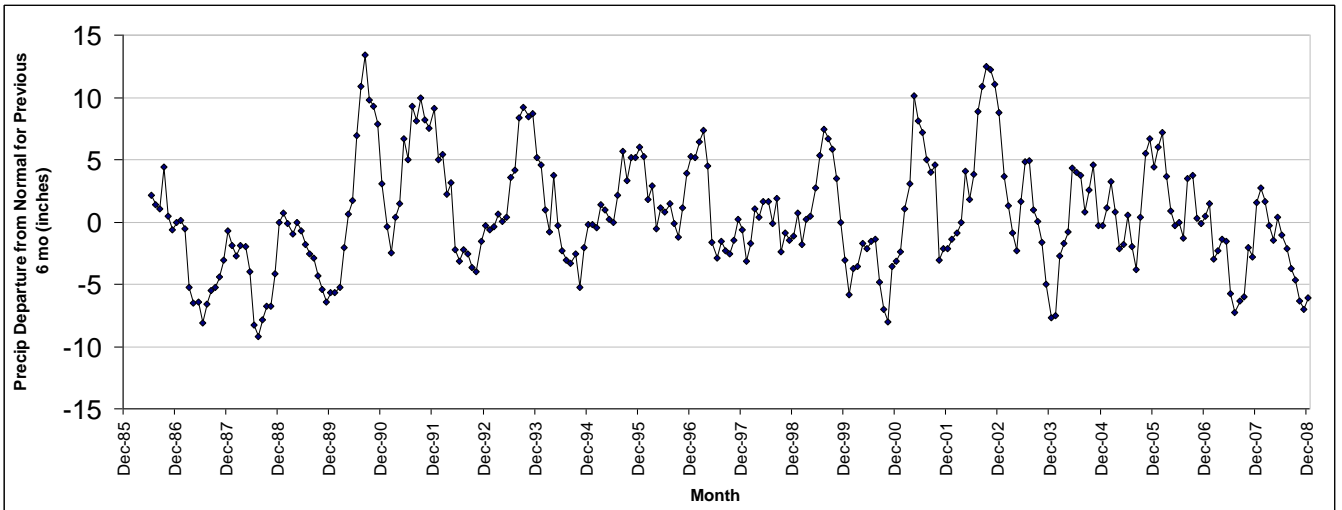
Coon Creek Watershed 2008 Precipitation

Site	Location	Month												Annual Total	Growing Season (May-Sept)	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
ACD Office	Ham Lake				1.40	3.38	4.28	2.42	1.15	2.37	1.77				16.77	13.60
CCWD- Blaine Public Works	Blaine				3.33	3.47	2.32			1.53				10.65	7.32	
CCWD- Bunker Hills Park	Andover				2.59	3.27	2.98	2.19	1.38	1.72	1.46				15.59	11.54
CCWD- Northern Nat. Gas	Ham Lake				3.25	4.30	2.97	3.54	1.59	2.06	1.36				19.07	14.46
CCWD- ACD office	Ham Lake				1.40	3.38	4.31	2.60	0.57	2.44	1.86				16.56	13.30
CCWD- Coon Rapids City Hall	Coon Rapids				2.50	3.55	3.64	2.42	1.90	2.21	1.46				17.68	13.72
N. Myhre	Andover	0.08	0.47	1.06	3.42	3.63	3.75	2.30	1.44	2.11	1.51	0.86	1.52	22.15	13.23	
S. Scherger	Coon Rapids				3.29	3.60	3.59		1.65	2.34	1.53			16.00	11.18	
S. Solie	Coon Rapids					3.08	4.35	3.15	2.25	2.14	1.27			16.24	14.97	
2008 Average	County-wide	0.08	0.47	1.06	2.65	3.52	3.58	2.66	1.49	2.10	1.53	0.86	1.52	21.51	13.35	
30 Year Average	Cedar	0.99	0.76	1.84	2.40	3.43	4.22	4.21	4.70	3.29	2.44	2.18	0.90	31.36	19.85	

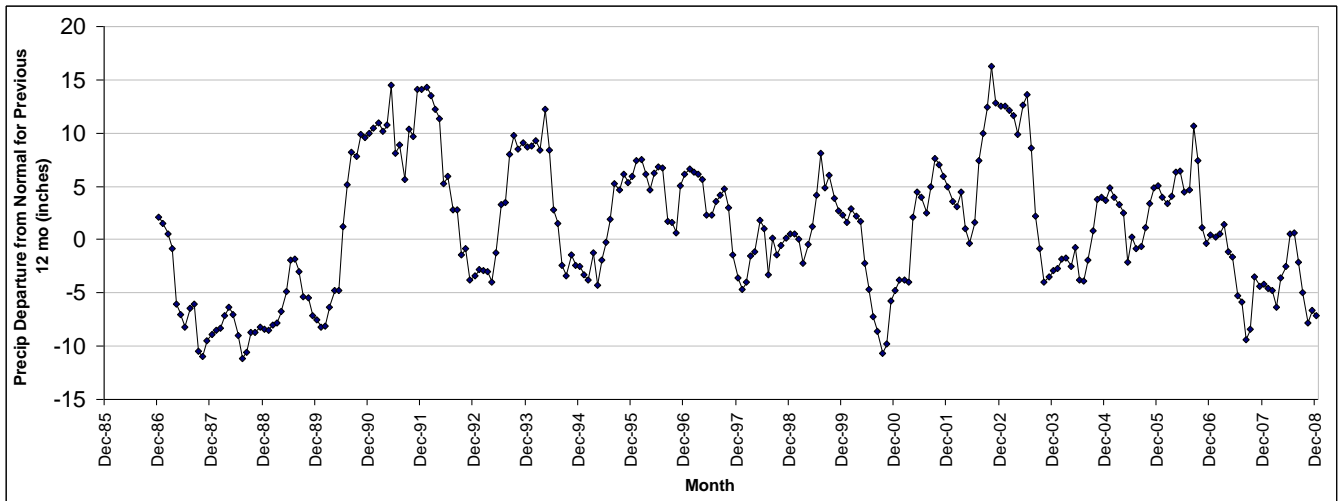
precipitation as snow is given in melted equivalents

CCWD gauges are datalogging. All others are cylinders read daily.

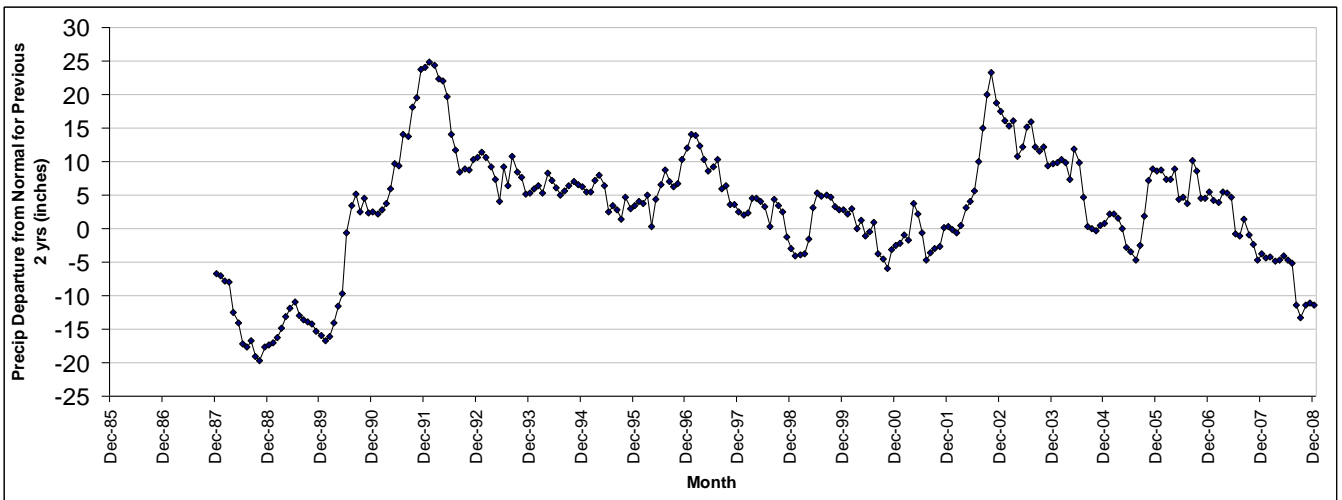
Precipitation departure from normal during the previous 6 months



Precipitation departure from normal during the previous 12 months

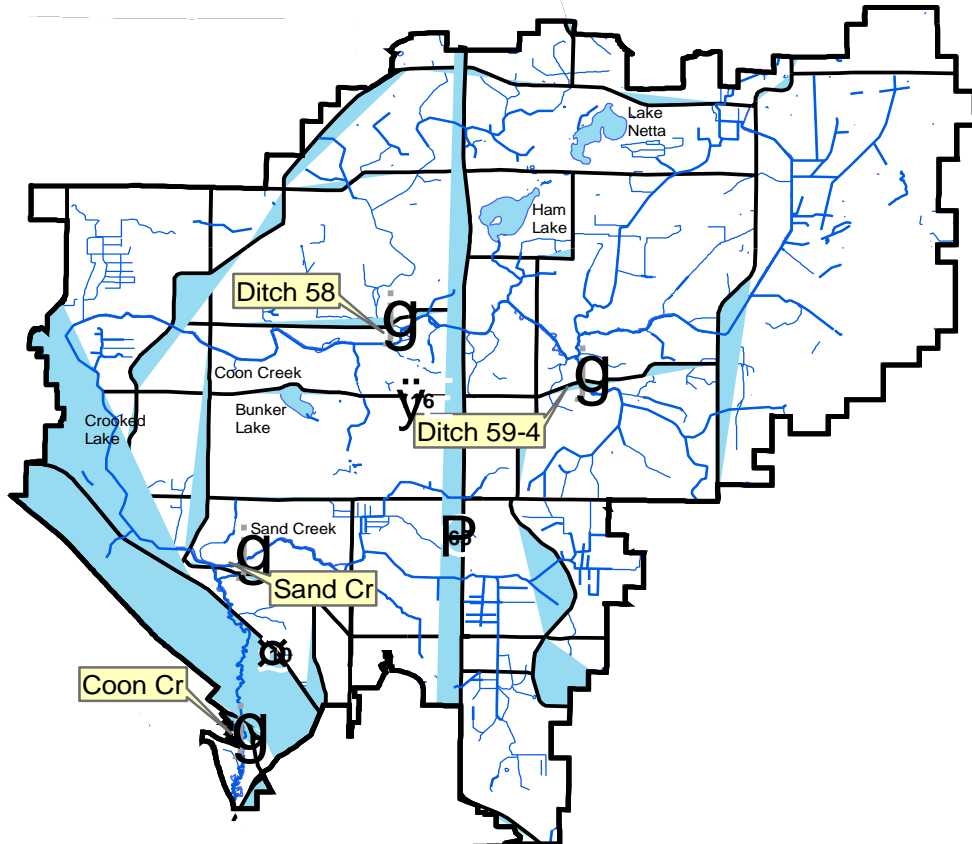


Precipitation departure from normal during the previous 2 years



Stream Hydrology Monitoring

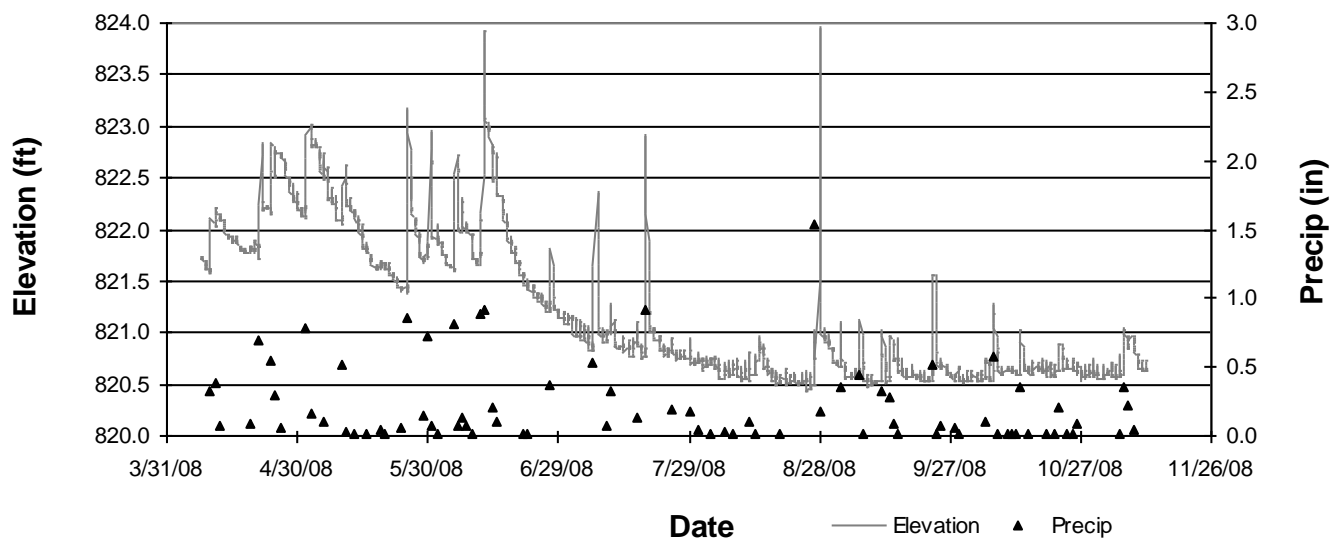
Coon Creek Watershed 2008 Stream Hydrology Monitoring Sites



Description

Continuous water level monitoring in streams at four locations provides understanding of stream hydrology, including the impact of climate, land use or discharge changes. These data also facilitate calculation of pollutant loads, and use in computer models for developing management strategies.

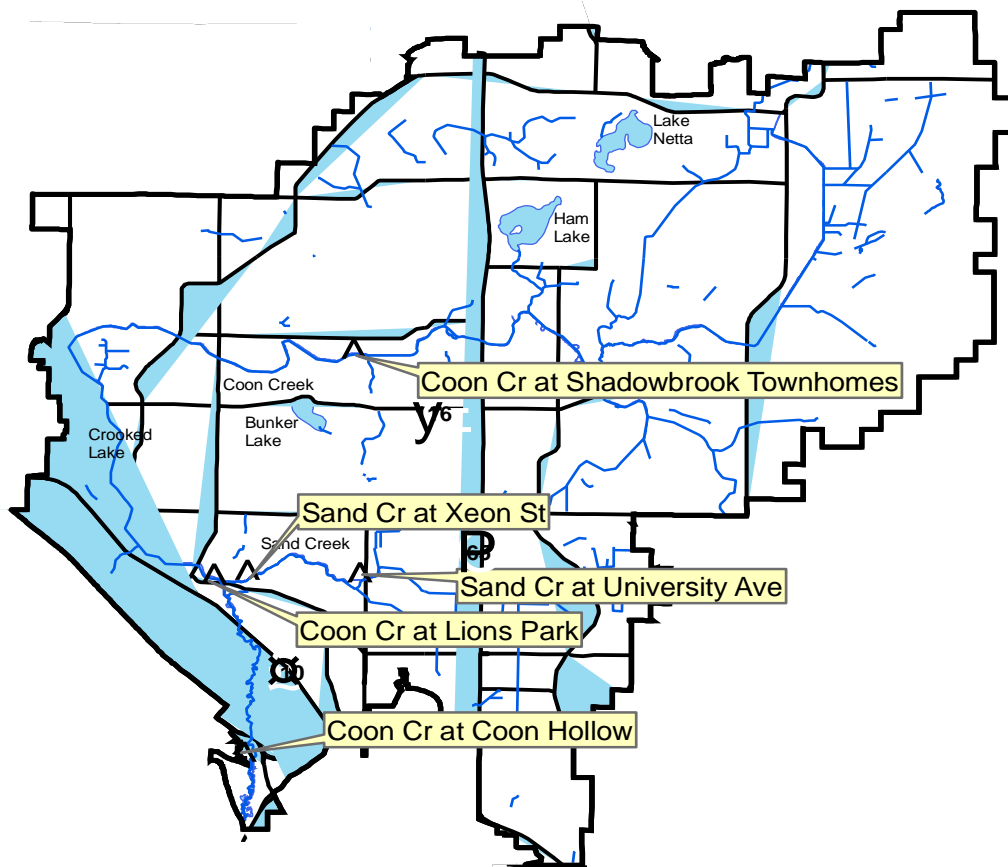
2008 Hydrograph



Fluctuations

	2001	2002	2003	2004	2005	2006	2007	2008	All Years
Coon Creek					3.22	3.92	4.14	3.53	4.43
Sand Creek	0.94	2.00	1.92	1.96	2.15	2.06	1.93	1.53	2.44
Ditch 58	1.19	2.32	2.91	2.80	3.07	2.44	2.40	2.34	3.14
Ditch 59-4								1.04	1.04

Stream Water Quality



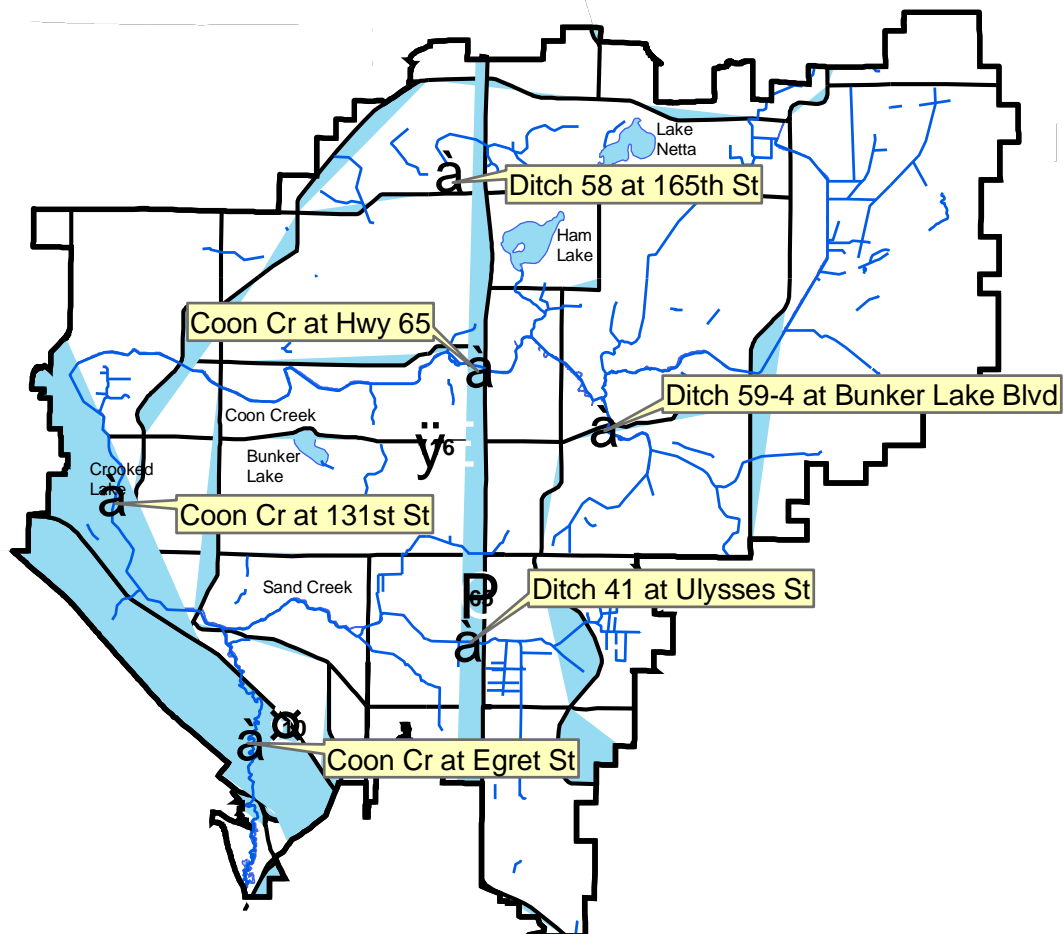
Description

The District monitors stream water quality at five locations. Each location is sampled eight times: four during storm events and four during baseflow.

Coon Creek	Minimum Impact Standard	2005	2006	2007	2008	Need
TP (mg/L)	.130	0.233	0.123	0.125	0.134	Consistently low during baseflow conditions, but on average it doubled during storms. A combination of prevention and best management practices to capture them before stormwater reaches the creek.
TSS (mg/L)	>13.7	92	25	21	34	Reasonably low during baseflow but increased substantially (5X) during

Coon Creek	Minimum Impact Standard	2005	2006	2007	2008	Need
						storms and increased upstream-to-downstream Storms greater than one-inch produce the worst creek water quality, so practices aimed at reducing suspended solids and phosphorus entering the creek during those storms are especially important.
CL (mg/L)	8.0	49.0	48.5	58.3	58.8	The results suggest that while road deicing salts are a large component of the dissolved pollutants, they are not the only one

Biomonitoring



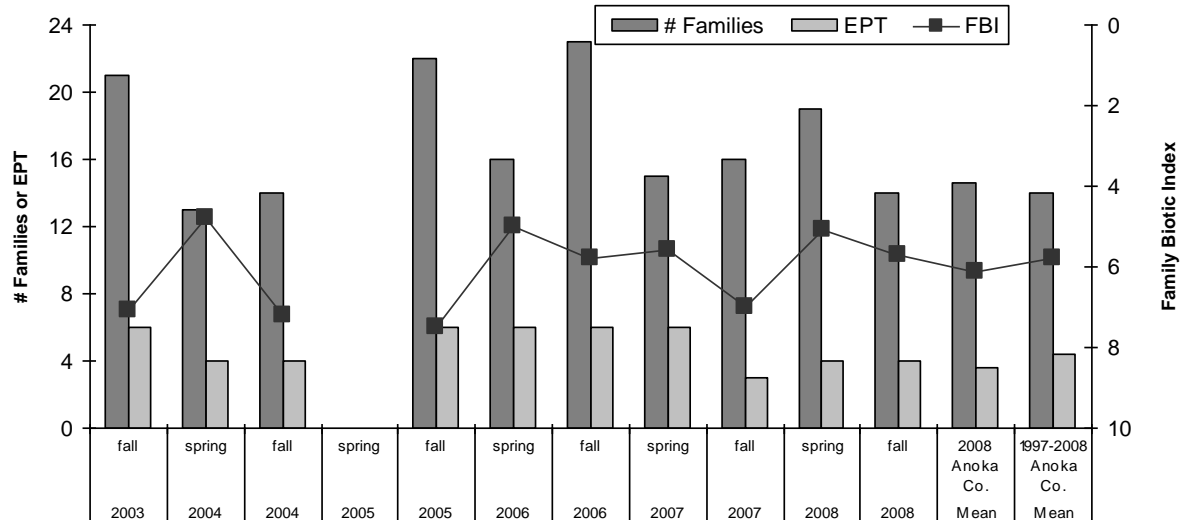
Description

In 2008 the District monitored seven locations within the watershed. The effort, coordinated by the Anoka Conservation District, assessed stream health by using benthic (bottom dwelling) macroinvertebrates to determine stream health. Certain macroinvertebrates, such as mayflies, stoneflies, and caddisflies require high quality streams while other, such as midges, thrive in poor quality streams. Because of their extended exposure to stream conditions and sensitivity to habitat and water quality, these macroinvertebrates can serve as good indicators of stream health.

The Minnesota Pollution Control Agency (MPCA) has listed Coon Creek as biologically impaired based on single samples from two sites in August of 2000. Both of these reaches are actively maintained ditches that had been cleaned recently. The purpose of this work is to:

- compare maintained and unmaintained creek reaches,
- compare the Coon Creek system with similar nearby streams,
- examine the effect of total suspended solids on invertebrate communities, and to
- verify the MPCA's findings.

Summarized Biomonitoring Results for Coon Creek in Andover



Summary

The 2008 data are limited in several ways and therefore the results should be interpreted with caution. Limitations included that only one year of data was collected and that only two “unmaintained” sites were sampled. Yet, the following general conclusions seem apparent:

- FBI and EPT indices of stream health are not different among unmaintained reaches of stream and those that have been maintained (cleaned with a backhoe) in the last 10 years.
- There was no difference in MSHA habitat scores between maintained and unmaintained stream reaches.
- There was no difference in total suspended solids between maintained and unmaintained stream reaches.
- Coon Creek sites monitored by the MPCA and used to designate the creek as “biologically impaired” rank in the upper half of 12 sites on six streams that were monitored throughout Anoka County in 2008 (includes student-monitored sites), though few of the sites had significantly different FBI or EPT.
- EPT and FBI stream health indices improve with improving habitat scores, decreased TSS and decreased turbidity.
- MPCA sampling in September, 2000 indicated better stream health than we found in 2008.

While land use scores appear to be significantly higher in unmaintained sites, there appears to be no significant differences in overall MSHA scores. Additionally, there appears to be no statistical differences in riparian quality, substrate quality, cover quality, channel morphology scores, or TSS levels between maintained and unmaintained sites. While turbidity appears to be higher in unmaintained sites, the data is skewed by one site that lies adjacent to both a sod farm and residential yard, which is mowed to the stream edge. Overall, the data indicates that channel management does not significantly affect habitat quality or macroinvertebrate community health. However, any effect due to management activity would be very difficult to detect given the extremely small sample size of this project to date.

Comparison between Coon Creek and other local streams

Comparing the Coon Creek monitoring sites to a variety of other streams nearby provides some context for its relative ecological health and “impaired” designation. Six other streams in Anoka County underwent biological monitoring twice in 2008 (May and October), and all have at least five prior years of monitoring to provide a measurement of the variability they experience. The streams monitored include Pleasure Creek, Rice Creek, Hardwood Creek, Rum River, Clearwater Creek, and a site on Coon Creek.

Using FBI as an indicator of stream quality or health, the Coon Creek site at 131st Street was the best site monitored in 2008. The Ditch 41 site at Ulysses was the worst. Only five of the monitored sites are considered to have at least fair water quality. Only two of the monitored sites are considered to have good or very good water quality, both of which are part of the Coon Creek system. However, of the seven sites considered to have fairly poor, poor, or very poor water quality, four are also part of the Coon Creek system. Also of note is that the two sites sampled by MPCA in their study had relatively high EPT richness than similar Anoka County streams. Sites within the ditch drainage system, however, generally had lower EPT richness than main channel sites.

Comparison with results obtained by the Minnesota Pollution Control Agency

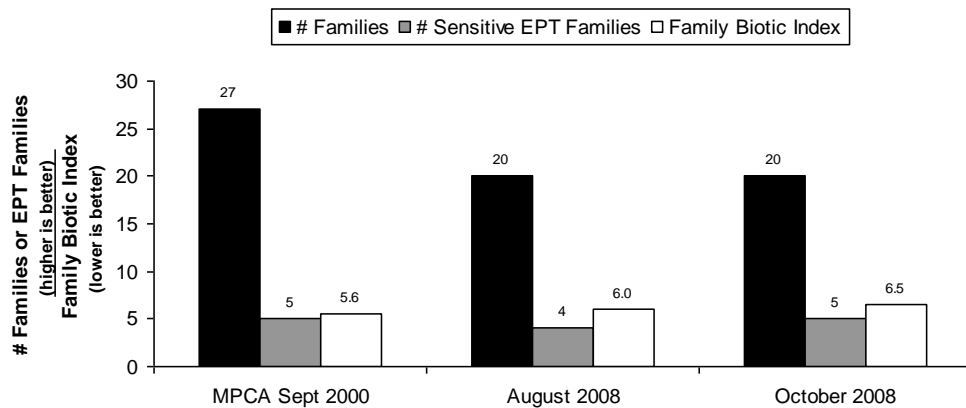
One goal of this study was to compare MPCA’s invertebrate data from Coon Creek in 2000 to 2008 data at the same sites. This comparison would serve to check the accuracy of the impaired designation that was made based upon just one sample. In making such a comparison, it is important to recognize that MPCA identifies all of their invertebrate samples to the genus level, which is more specific than the family-level identifications done for this study. Genus-level identifications allows sorting the sometimes different pollution tolerances of different genus within each family, and is therefore better. Overall, MPCA found a rich invertebrate community downstream at Egret Boulevard, fewer upstream at Highway 65, and their results indicated better stream health than the 2008 data.

MPCA found a rich invertebrate community at Egret Boulevard (Erlandson Park), but the Hilsenhoff Biotic Index (HBI) indicated poorer stream health than at Highway 65. At Egret Boulevard, 57 different genus were found. MPCA staff indicated that this total is

notably higher than most sites in the metro, but 28 of these were listed as [pollution] “tolerant.” By comparison, 36 genus were found at Highway 65 (29 in a later replicate), of which 22 were listed as [pollution] “tolerant.” Conversely, the HBI, which has a scale of 0 to 10 with lower numbers indicating better stream health, was 6.05 at Egret Boulevard, which corresponds to a water quality assessment of “fair.” At Highway 65 the HBI was 5.67, which corresponds to a water quality assessment of “good.” Aside from these differences in the invertebrate community, there are significant habitat differences between these two sites – at Highway 65 the stream is ditched whereas at Egret Boulevard the creek is not ditched and flows as riffles, pools, and runs through a nature park preserve.

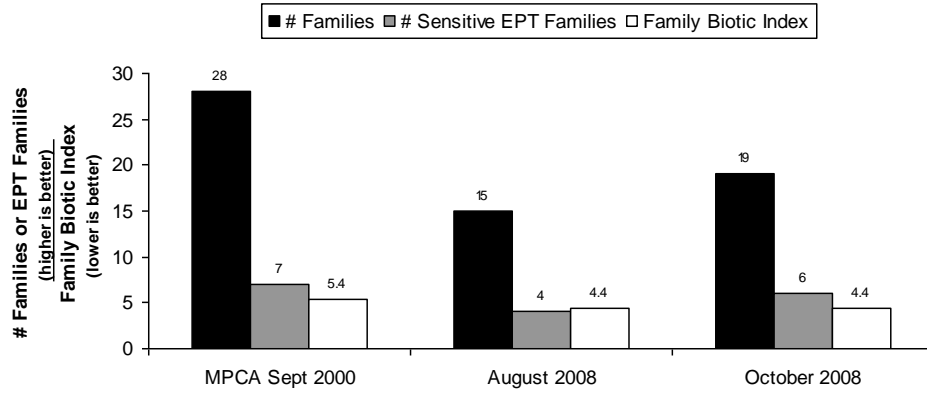
MPCA’s data indicate better stream health than found by our sampling in 2008, though the datasets are similar. We summarized MPCA’s data back into families (broader categories) so it would be comparable to this study’s data. The figures below show the number of families; number of sensitive families of the orders Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies, collectively referred to as EPT); and Family Biotic Index (FBI) by MPCA in 2000 and the Anoka Conservation District (ACD) in August and October 2008. At both Highway 65 and Egret Boulevard a similar number of families (27 and 28) were found, but MPCA sampling found more families at each location than 2008 sampling. Family biotic index ratings for the Egret Boulevard sampling site were better than for the Highway 65 sampling site in all datasets.

Coon Creek at Highway 65 - comparison of family-level invertebrate indices of stream health

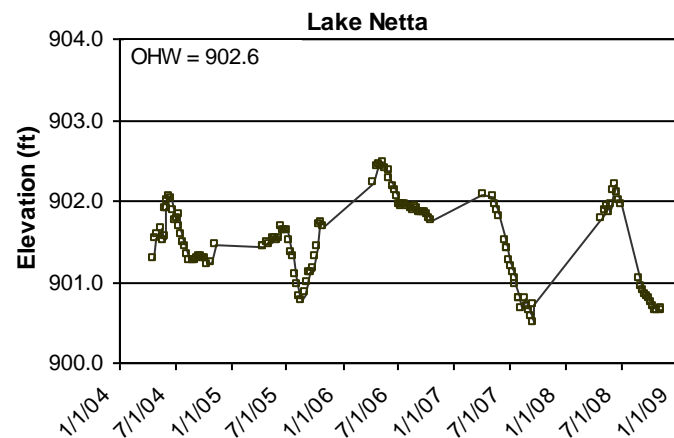
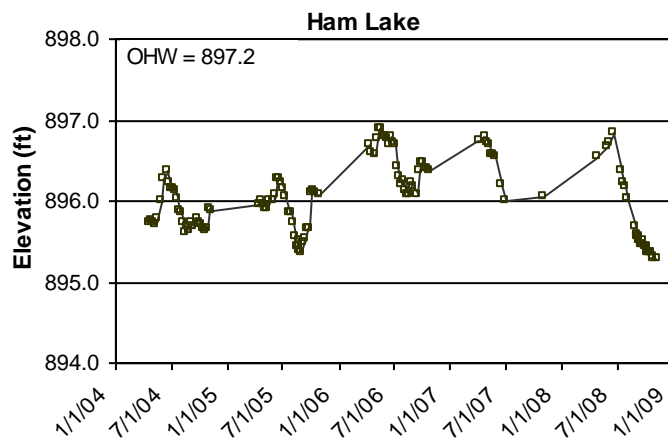
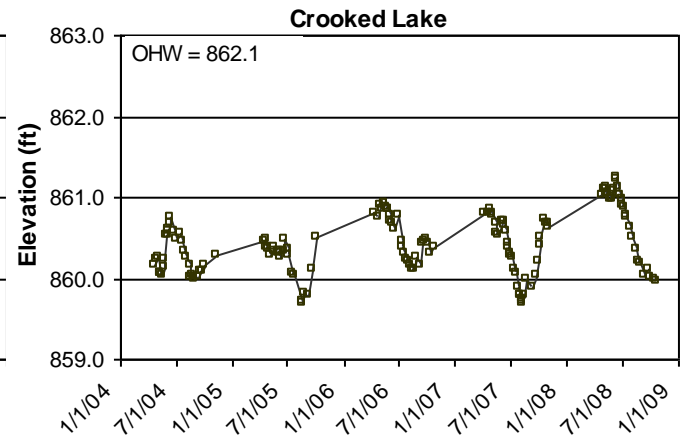
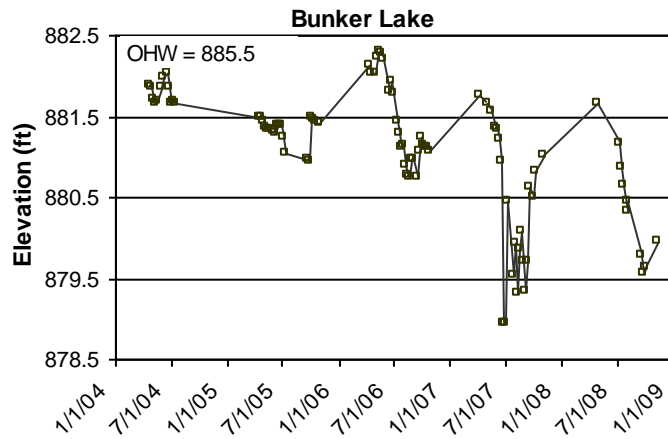


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Coon Creek at Egret Boulevard - comparison of family-level invertebrate indices of stream health



Lake Level Monitoring



Description

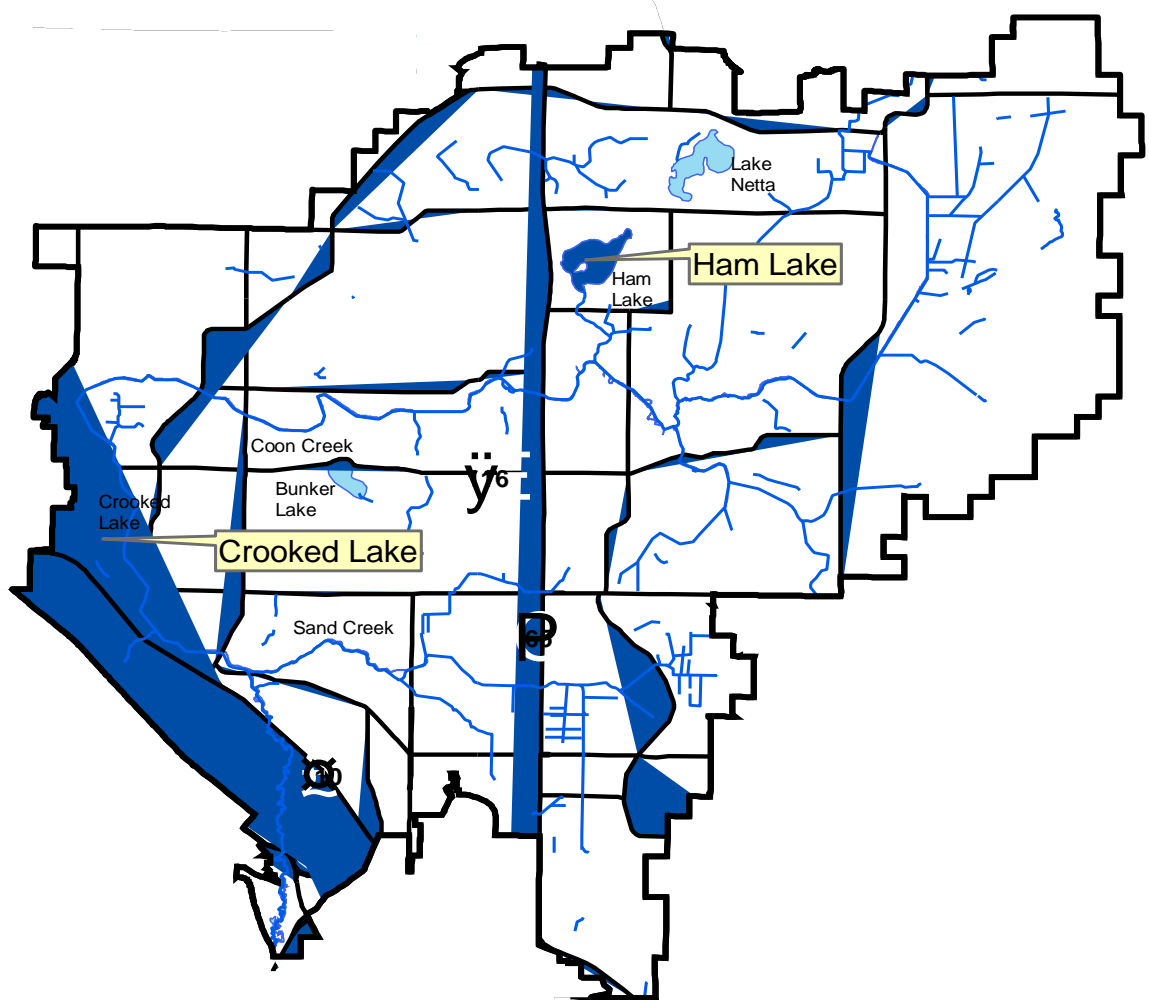
Long term monitoring of lake levels is useful for regulatory decision making, development decisions, lake management decisions and investigation into possible causes of various impacts to lakes. The lakes are monitored using an enamel gauge that is surveyed into each lake so that readings coincide with mean sea level elevations. The gauges are read weekly and reported to the DNR by the anoka conservation District. The data is available on the DNR website (www.dnr.mn.us.state/lakefind/index.html)

Coon Creek Watershed Lake Levels Summary 2004-2008

Lake	Year	Average	Min	Max
Bunker	2004	881.80	881.66	882.04
	2005	881.33	880.94	881.50
	2006	881.45	880.75	882.31
	2007	880.39	878.95	881.77
	2008	880.41	879.57	881.66
Crooked	2004	860.27	859.99	860.75
	2005	860.23	859.68	860.51
	2006	860.54	860.10	860.92
	2007	860.35	859.68	860.86
	2008	860.75	859.96	861.24
Ham	2004	895.85	895.61	896.36
	2005	895.85	895.37	896.26
	2006	896.48	896.07	896.89
	2007	896.49	895.99	896.78
	2008	895.74	895.29	896.83
Netta	2004	901.55	901.21	902.05
	2005	901.36	900.76	901.72
	2006	902.05	901.76	902.46
	2007	901.17	900.49	902.07
	2008	901.32	900.63	902.19

Lake levels were measured 22 to 30 times, depending upon the lake, except for Bunker Lake. At Bunker Lake 10 total measurements were taken, mostly by ACD staff and not by the volunteer who had been secured to do the work. Water levels of these four lakes fell throughout summer 2008. Bunker Lake has proven especially difficult to measure in recent years, including 2008, because only a small, unreachable area of open water is present by mid-summer. To overcome this, water levels in the lake muck were measured inside a perforated PVC well.

Lake Water Quality Monitoring



Description

To detect water quality trends and diagnose the cause of changes water quality samples are taken May through September twice-monthly. The samples are analyzed for the following parameters: total phosphorus, chlorophyll-a, Secchi transparency, dissolved oxygen, turbidity, temperature, conductivity, pH, and salinity. Detailed data for each lake are provided Anoka Water Almanac prepared by the Anoka Conservation District, including summaries of historical conditions and trend analysis. Previous years' data are available from the ACD.

Lake monitoring has followed the following schedule

	2007	2008	2009	2010	2011
Crooked		X	X		X
Ham	X	X		X	X
Netta	X		X	X	

Crooked Lake 2008

			5/14/2008	5/25/2008	6/11/2008	6/25/2008	7/9/2008	7/23/2008	8/6/2008	8/21/2008	9/4/2008	9/18/2008	Average	Min	Max
	Units	R.L.*	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results			
pH		0.1	8.65	8.73	8.30	8.55	8.46	8.42	8.21	8.29	8.08	8.25	8.39	8.08	8.73
Conductivity	mS/cm	0.01	0.453	0.444	0.422	0.414	0.437	0.448	0.450	0.478	0.472	0.471	0.449	0.414	0.478
Turbidity	FNRU	1	9	8	3	4	4	6	5	4	3	5	5	3	9
D.O.	mg/L	0.01	10.93	10.27	8.94	9.64	6.67	8.47	7.06	8.42	7.90	9.07	8.49	6.67	10.27
D.O.	%	1	105%	107%	98%	115%	93%	104%	87%	104%	90%	98%	100%	87%	115%
Temp.	°C	0.10	13.6	17.4	20.0	24.4	25.0	25.8	25.8	25.0	21.7	18.9	21.8	13.6	25.8
Temp.	°F	0.10	56.5	63.3	68.0	75.9	77.0	78.4	78.4	77.0	71.1	66.0	71.2	56.5	78.4
Salinity	%	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cl-a	mg/L	0.5	13.9	7.1	5.5	5.5	8.5	7.6	7.4	8.2	11.4	9.9	8.5	5.5	13.9
T.P.	mg/L	0.010	0.045	0.024	0.017	0.015	0.021	0.022	0.027	0.030	0.024	0.039	0.026	0.015	0.045
T.P.	ug/L	10	45	24	17	15	21	22	27	30	24	39	26	15	45
Secchi	ft	0.1	5.1	8.7	11.0	10.8	6.0	6.9	4.2	5.3	6.8	5.9	7.1	4.2	11.0
Secchi	m	0.1	1.6	2.7	3.4	3.3	1.8	2.1	1.3	1.6	2.1	1.8	2.2	1.3	3.4
Field Observations															
Physical			2.0	3.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	2.0	2.7	2.0	3.0
Recreational			2.0	3.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	2.0	2.6	2.0	3.0

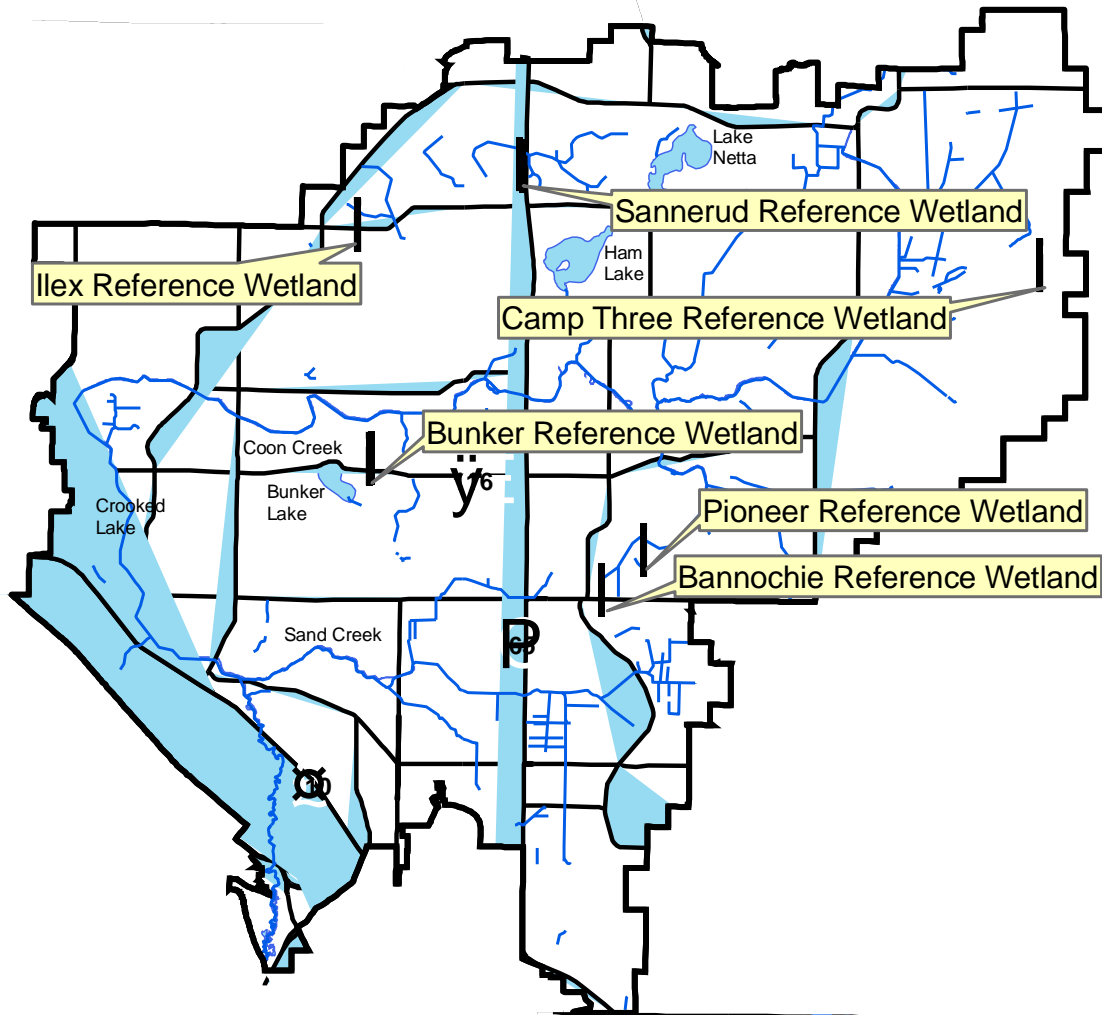
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2008 Ham Lake

			5/14/2008	5/28/2008	6/11/2008	6/25/2008	7/9/2008	7/23/2008	8/6/2008	8/21/2008	9/4/2008	9/18/2008	Average	Min	Max
	Units	R.L.*	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results			
pH		0.10	8.12	8.22	8.08	8.79	8.52	8.46	8.21	8.03	7.76	8.21	8.24	7.76	8.79
Conductivity	mS/cm	0.010	0.292	0.282	0.255	0.236	0.248	0.251	0.250	0.271	0.277	0.282	0.264	0.236	0.292
Turbidity	FNRU	1	3	4	2	2	2	3	3	2	3	3	3	2	4
D.O.	mg/l	0.01	10.62	9.32	8.90	10.06	8.32	5.93	7.04	n/a	8.64	10.19	8.77	5.93	10.62
D.O.	%	1	102%	96%	97%	120%	100%	73%	86%	n/a	98%	108%	98%	73%	120%
Temp.	°C	0.1	13.8	16.8	19.6	24.3	24.4	25.8	25.4	24.8	21.4	17.9	21.4	13.8	25.8
Temp.	°F	0.1	56.8	62.2	67.3	75.7	75.9	78.4	77.7	76.6	70.5	64.2	70.6	56.8	78.4
Salinity	%	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01
Cl-a	mg/m^3	0.5	4.3	< 1.0	2.5	2.8	4.5	5.5	6.5	8.2	11.9	12.4	6.0	1.0	12.4
T.P.	mg/l	0.010	0.025	0.015	0.014	0.010	0.018	< .02	0.018	0.029	0.025	0.031	0.021	0.010	0.031
T.P.	ug/l	10	25	15	14	10	18	<20	18	29	25	31	21	10	31
Secchi	ft	0.1	11.8	8.2	11.5	11.1	9.9	9.9	7.1	7.6	6.3	6.6	9.0	6.3	11.8
Secchi	m	0.1	3.6	2.5	3.5	3.4	3.0	3.0	2.2	2.3	1.9	2.0	2.7	1.9	3.6
Field Observations															
Physical			1.5	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	2.1	1.5	3.0
Recreational			1.5	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	2.1	1.5	3.0

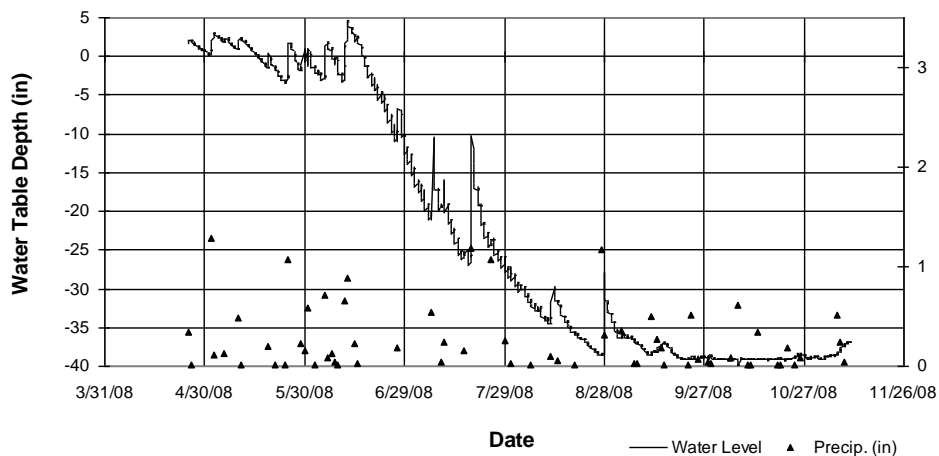
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Wetland Hydrology Monitoring



Description

To provide understanding of wetland hydrology, including the impact of climate and land use. These data aid in delineation of nearby wetlands by documenting hydrologic trends including the timing, frequency, and duration of saturation. Continuous groundwater level monitoring at a wetland boundary to a depth of 40 inches. District-wide, the ACD maintains a network of 6 wetland hydrology monitoring stations.



The purpose of reference wetland data is to help assure that wetlands are accurately identified by regulatory personnel. State and federal laws place restrictions on filling, excavations, and other activities in wetlands. Commonly, citizens wish to do work in an area that is sometimes, or perhaps only rarely, wet. Whether this area is a wetland under regulatory definitions is often in dispute. Complicating the issue is that conditions in wetlands are constantly changing—an area that is very wet and clearly wetland at one time may be completely dry only a few weeks later (dramatically displayed in the graphs above). As a result, regulatory personnel look at a variety of factors, including soils, vegetation, and current moisture conditions. Reference wetland data provide a benchmark for comparing moisture conditions in a disputed area to known wetlands, thereby helping assure accurate regulatory decisions. The analysis of reference wetland data provided above is a quantitative, non-subjective tool.

The simplest use of the reference wetland data is to compare water levels in the reference wetlands to water levels in a disputed area. The graphics and tables above are based upon percentiles of the water levels experienced at known wetland boundaries. The quantile boxes in the figures delineate the 10th, 25th, 50th, 75th, and 90th percentiles. Water table depths outside of the box have a low likelihood of occurring, or may only occur under extreme circumstances such as extreme climate conditions or in the presence of anthropogenic hydrologic alterations. If sub-surface water levels in a disputed area are similar to those in reference wetlands, there is a high likelihood that the disputed area is a wetland.

This approach can be refined by examining data from only the year of interest and only certain wetland types. This removes much of the variation that is due to climatic variation among years and due to wetland type. Substantial variation in water levels will no doubt remain among wetlands even after these factors are accounted for, but this exercise should provide a reasonable framework for understanding what hydrologic conditions were present in known wetlands during a given time period.

Water table levels are recorded every 4 hours at all 19 reference wetlands (except during winter), and the raw water level data available through the Data Access tool at www.AnokaNaturalResources.com.

Measure / Outcome

Measures	2007	2008	2009	2010	2011
Precipitation Monitoring	Yes	Yes	Yes	Yes	Yes
Infiltration Monitoring	Yes	Yes			
Lake Level Monitoring	Yes	Yes	Yes	Yes	Yes
Lake Water Quality	Yes	Yes	Yes	Yes	Yes
Stream Monitoring	Yes	Yes	Yes	Yes	Yes
Stream Water Quality Monitoring	Yes	Yes	Yes	Yes	Yes
Stream Biomonitoring	Yes	Yes	Yes	Yes	Yes
Wetland Hydrology	Yes	Yes	Yes	Yes	Yes
Impaired Water Study		Yes	Yes	Yes	Yes
Stream Water Quality Monitoring	Yes	Yes	Yes	Yes	Yes
Innovative Infiltration BMP Study	Yes	Yes			
Rain Garden Performance Study		Yes			

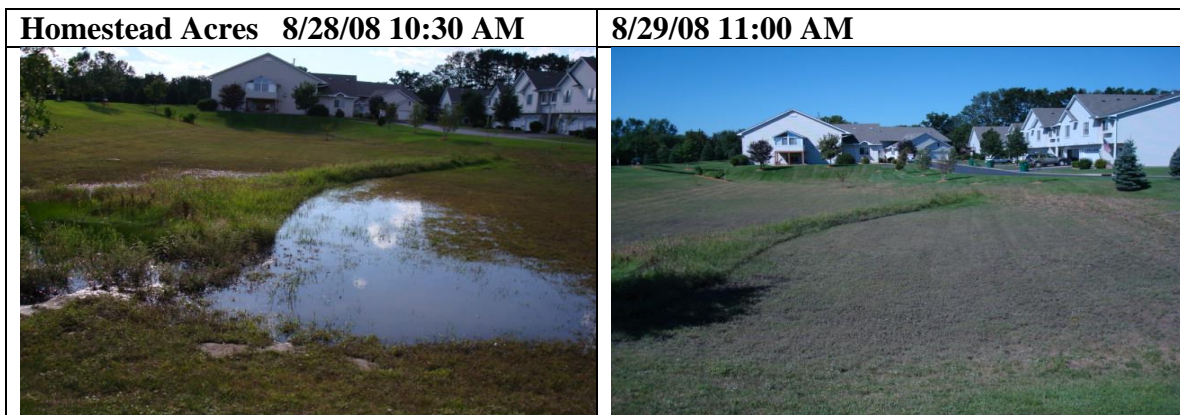
Infiltration Basin Assessment & Restoration



In 2004 and 2005 the District monitored infiltration rates on six sites in Andover, Blaine and Ham Lake. Monitored infiltration rates ranged for .006 to .209 inches per hour, substantially slower than the published values for the monitored soils and below the rates recommended and regulated by the Coon Creek Watershed District.

In 2008 the District evaluated four constructed infiltration basins to:

1. Determine existing infiltration rates
2. Compare measured rates to design objectives
3. Compare methods of measuring infiltration rates
4. Determine if basins are in need of repair, and methods for repair if needed



CCWD and Wenck conducted two types of infiltration tests on three basins in the CCWD. The purpose of the testing was to determine if the basins were functioning as designed, recommend corrective action if they were not functioning, and recommend infiltration rates for the design of future infiltration basins and rain gardens. The tests consisted of flooding the basins (simulated runoff) and using the Phillip-Dunne permeameter to estimate the saturated hydraulic conductivity.

The results of the simulated runoff and Phillip-Dunne permeameter tests are listed in Table 2 for each basin.

Table 2. Results from CCWD simulated runoff and Phillip-Dunne (PD) infiltration tests.

Basin	Test	Infiltration Rate (In/Hr)
	Runoff	Phillip-Dunne
Andover	0.2	1.8
Denny Hecker	0.8	0.5
Roosevelt MS	4.8	1.3

The basins at Denny Hecker and Roosevelt Middle School are functioning as designed based on the simulated runoff method results; these basins are not in need of repair. The infiltration rate measured at the Andover Water Treatment Plant is lower than expected but consistent with the rate measured for the basin in 2004 and 2005.

The Phillip-Dunne method produced infiltration rates that were highly variable. Therefore, this method would have to be repeated numerous times at various locations in the same basin to determine an average infiltration rate for the overall basin. It is likely that the thickness of the turf grass at the Denny Hecker site limited the infiltration rate calculated for the Phillip-Dunne method.

District Performance

Introduction

In the 2003 Budget and Plan, the District committed to delivering a range of water resource based benefits to the citizens of the watershed in a manner consistent with the District Comprehensive Plan. Below are the goals of the Comprehensive Plan:

Goal 1: To protect, preserve, and use natural surface and ground water storage and retention systems

Goal 2: To minimize public capital expenditures needed to correct flooding and water quality problems

Goal 3: To identify and plan for means to effectively protect and improve surface and groundwater quality

Goal 4: To establish uniform local policies and controls for surface and groundwater management

Goal 5: To prevent soil erosion into surface water systems

Goal 6: To promote ground water recharge

Goal 7: To protect and enhance fish and wildlife habitat and water recreational facilities

Goal 8: To secure the other benefits associated with the proper management of surface and ground water

Goal 9: To conserve natural resources through land use planning, flood control and conservation projects

Goal 10: To use sound scientific principals for the protection of public health and welfare and the provident use of natural resources

Goal 11: To ensure that the continued planning and management of the Coon Creek Watershed District is responsive to the needs and concerns of an informed public

Goal 1: Protect, preserve, and use the natural surface and groundwater storage and retention system

Objective 1.1: Maintain ditch and conveyance systems

Long Term Outcome Measures: Trends in agricultural drainage and flooding

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Issues and Complaints	Emergency Work	Emergency actions authorized	2	1	1	1
	Issues	Number of issues	65	80	77	76
Permit Review	Erosion & Sediment Control Best Management Practices (BMPs)	BMPs applied	260	138	75	107
Operations & Maintenance						
Repair	Ditch Repair	Projects	2	4	3	11
Routine Maintenance	Beaver Removal	Beaver removed	15	50	21	34
	Obstructions	Obstructions	6	27	7	45
	Trees & Vegetation	Trees removed	20	38	22	493
Planning						
Budgeting and Program Planning	Annual Priorities	Budget goals and themes	Yes	Yes	Yes	Yes
	Project Initiation	Project initiation reports prepared	2	0	1	2
Comprehensive Planning	Comprehensive Plan	Adoption of the Comprehensive Plan	Yes	Yes	Yes	Yes
	Differentiate Maintenance Needs		Yes	Yes	Yes	Yes
	Differentiate Role	Comprehensive Plan - Stream Order map	Yes	Yes	Yes	Yes
Public and Governmental Relations						
Involvement	Issue Management Hotline	Number of issues	60	83	77	74
Research						
Inspections	Ditch Inspection	Inspect 20% of the public system annually	20%	20%	20%	20%

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$31,996	\$39,798	\$125,478
FTEs		.6	.5	1.6

Objective 1.2: Avoid or minimize direct and indirect disturbance to wetlands

Long Term Outcome Measures: No net loss of the functions and values of jurisdictional wetlands within the watershed.

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Administration						
Training	Wetland Conservation Act (WCA)	Staff Days spent attending WCA training	8	5	25	18
Land & Water Regulation						
Issues and Complaints	Issues	Number of issues	65	80	77	76
Permit Inspection and Enforcement	Cease and Desist / Stop Work Orders	Cease and Desist & Stop Work Orders Issued	1	0	0	0
	Inspections	Number of Inspections	170	147	84	126
Permit Review	Conservation Easements	Easements dedicated	65	283	50	32
	Alternatives	Permit applications reviewed	155	169	115	78
	Regulations and Performance Standards	Continued performance and improvement of the complete water resource system	Yes	Yes	Yes	Yes
	Sequencing Analysis	Projects that minimized wetland impacts	109	49	18	12
		Wetland acres avoided through minimization of wetland impacts	30	32	1.8	13.5
		Wetland acres avoided completely	100	649	29.8	78.3
	Wetland Determination	Non-TEP field checks of wetland delineations	125	67	32	17
Public and Governmental Relations						
Information	Pre-application Conferences/Land Owner Contacts	Pre-application conferences	55	41	29	19

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$44,543	\$38,476	\$37,512
FTEs		1.2	.5	.5

Objective 1.3: Preserve the location, character, and extent of natural drainage courses

Long Term Outcome Measures: To ensure that adequate opportunities remain for using these resources to convey stormwater, and to ensure or minimize conflicts between drainage dependent land uses as well as other natural resources such as wetlands

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Inspection and Enforcement	Permits	Number of Permits	55	46	18	28
Permit Review	Best Management Practices (BMPs)	Number of BMPs	260	138	75	107
	Board Review and Action	Permit reviews by Board	120	119	86	67
	Conservation Easements	Easements dedicated	65	283	50	32
	Alternatives	Permit applications reviewed	155	169	115	78
	Flood Analysis	Letters sent	10	13	5	5
	Permit Review & Findings	Permit application reviewed	155	147	106	179
	Sequencing Analysis	Projects that minimized wetland impacts	109	49	18	12
		Wetland acres avoided through minimization of wetland impacts	30	32	1.8	13.2
		Wetland acres avoided completely	100	649	29.8	78.3
	Wetland Exemption Evaluation	Exemption determinations approved	10	7	1	2
Planning						
Comprehensive Planning	Comprehensive Plan	Comprehensive Plan (Up Date)	Yes	Yes	Yes	Yes
Public and Governmental Relations						
Involvement	Regular Meetings	Number of meetings per year	23	23	20	22

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$67,693	\$63,174	\$\$51,231
FTEs		1.6	.8	.6

Goal 2: Minimize public capital expenditures needed to correct flooding and water quality problems

Objective 2.1: Secure safety from floods

Long Term Outcome Measures: The reduction or elimination of flood damage to both agricultural land and residential property

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Inspection and Enforcement	Inspections	Number of Inspections	170	147	84	126
	Permits	Number of Permits	55	46	18	28
Permit Review	Best Management Practices (BMPs)	Number of BMPs	260	138	75	107
	Board Review and Action	Number of permit reviews by Board	120	119	86	67
	Capacity analysis	Number of permit application reviewed	155	147	110	78
	Flood Analysis	Number of letters	10	13	5	5
Planning						
Comprehensive Planning	Differentiate Role	Comprehensive Plan - Stream Order map	Yes	Yes	Yes	Yes
Research						
Modeling	HydroCAD	Convert HydroCAD to XPSWMMM	Yes	Yes	Yes	Yes
Monitoring	Stream Level	Water Atlas report on annual hydrographs and peak elevations for various locations within the watershed	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$29,634	\$54,523	\$54,834
FTEs		.8	.8	.8

Objective 2.2: Preserve the location, character, and extent of natural drainage courses

Long Term Outcome Measures: Long term water quality trends

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Inspection and Enforcement	Inspections	Number of Inspections	170	147	84	126
	Permits	Number of Permits	55	46	18	28
Research						
Monitoring	Lower Coon Creek Water Quality	Water Atlas report on lake water quality trends	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$8,988	\$13,257	\$19,091
FTEs		.2	.2	.3

Objective 2.3: Prevent property damage and the losses and risks associated with flood conditions that may arise from high water tables

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Inspection and Enforcement	Inspections	Number of Inspections	170	147	84	126
	Permit Review	Permit Review	Permit applications reviewed	155	147	106
	Regulations and Performance Standards	Continued performance and improvement of the complete water resource system	Yes	Yes	Yes	Yes
Research						
Modeling	Water Budget	Updated Budget	Yes	Yes	Yes	Yes
Monitoring	Infiltration Rate	Report on infiltration rates in established infiltration basins on varying soil types	Yes	Yes	Yes	Yes
	Wetland Hydrology	Water Atlas report on wetland hydrology	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$20,437	\$33,646	\$51,607
FTEs		.3	.4	.6

Goal 3: Identify and plan for means to effectively protect and improve surface and groundwater quality

Objective 3.1: Monitor water quality and condition of lakes in the watershed

Long Term Outcome Measures: Long term water quality monitoring and trends

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Research						
Monitoring	Lake Level	Water Atlas report on trends in lake level elevations	Yes	Yes	Yes	Yes
	Lake Water Quality	Water Atlas report on lake water quality trends	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$1,600	\$2,300	\$2,300
FTEs		.01	.05	.15

Objective 3.2: Monitor water quality at the outlet to the watershed

Long Term Outcome Measures: Water quality trends

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Research						
Monitoring	Lower Coon Creek Water Quality	Water Atlas report on Stream water quality trends	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$800	\$3,680	\$3,680
FTEs		.01	.1	.1

Objective 3.3: Identify the roles and responsibilities of governmental units in implementing land use controls for the protection of groundwater quality

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Planning						
Comprehensive Planning	Comprehensive Plan	Comprehensive Plan (Up Date)	Yes	Yes	Yes	Yes
Public and Governmental Relations						
Involvement	Plan & Permit Coordination	Number of TAC and TEP meetings	16	18	17	

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$12,720	\$10,019	\$15,800
FTEs		.06	.1	.1

Objective 3.4: Reduce siltation and the pollution of water bodies and streams

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land and Water Regulation						
Permit Inspection and Enforcement	Inspections	Number of Inspections	170	147	84	126
Permit Review	Best Management Practices (BMPs)	Number of BMPs	260	138	75	107

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$9,376	\$11,311	\$17,585
FTEs		.3	..2	.2

Objective 3.5: Ensure a dependable water supply and ensure the integrity of natural drainage patterns

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land and Water Regulation						
Environmental Review	Environmental Review	Number of Environmental reviews occurring	4	10	3	9
Permit Review	Regulations and Performance Standards	Continued performance and improvement of the complete water resource system	Yes	Yes	Yes	Yes
Research						
Monitoring	Infiltration Rate	Report on infiltration rates in established infiltration basins on varying soil types	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$6,106	\$12,576	\$20,098
FTEs		.04	.1	.2

Goal 4: Establish uniform local policies and controls for surface and groundwater management

Objective 4.1: Provide for active involvement of the public and related units of government in developing and implementing water management plans and activities

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Involvement	Advisory Committees	Number of meetings	9	6	6	9
	Comprehensive Plan Development	Number of Workshops/Reviews	5	1	4	6

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$1,523	\$2,260	\$3,391
FTEs		.02	.02	.04

Objective 4.2: Coordinate the policies, plans, programs, and regulations of all state and local agencies are consistent with the comprehensive management plan

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Involvement	Coordination with Local and County Government	Number of TAC	16	23	14	20
	Local Water Plan Review and Approval	Number of Local Plans reviewed	1	1	9	9
	Plan & Permit Coordination	Number of TEP meetings	16	18	17	23

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$11,854	\$7,770	\$11,232
FTEs		.16	.1	.1

Objective 4.3: Provide information to the public and decision makers

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Information	Low Impact Development	Number of Drainage Sensitive/ Low impact developments reviewed	115	24	17	5
	Model Ordinance Principles/Standards	Number of Ordinances adopted	1	1	1	0
	Watershed District Rules and Standards		Yes	Yes	Yes	Yes
Involvement	Agenda Distribution	Number on distribution list	40	41	43	45

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$3,440	\$21,880	\$24,802
FTEs		.08	.23	.3

Objective 4.4: Define the roles and responsibilities of governmental units in implementing land use controls for the protection of groundwater quality

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Information	Low Impact Development	Number of Drainage Sensitive/ Low impact developments reviewed	115	24	17	5
	Model Ordinance Principles/Standards	Number of Ordinances adopted	1	1	1	0
Involvement	Comprehensive Plan Development	Number of Workshops/Reviews	5	1	4	6

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$2,915	\$3,655	\$3,751
FTEs		.09	.04	.04

Objective 4.5: To encourage compatibility between land use activities upstream and down stream and natural resource capacity

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Review	Board Review and Action	Number of permit reviews by Board		119	86	67
	Capacity analysis	Number of permit application reviewed		147	110	78
	Permit Review & Findings	Number of permit application reviewed		147	106	179
Public and Governmental Relations						
Information	Low Impact Development	Number of Drainage Sensitive/ Low impact developments reviewed		24	17	5
	Model Ordinance Principles/Standards	Number of Ordinances adopted		1	1	1

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$26,926	\$40,517	\$40,624
FTEs		.8	.5	.5

Goal 5: To prevent soil erosion into surface water systems

Objective 5.1: Encourage the utilization of all appropriate best management practices for erosion and sediment control and stormwater management

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Inspection and Enforcement	Inspections	Number of Inspections	170	147	84	126
Permit Review	Best Management Practices (BMPs)	Number of BMPs	260	138	75	107

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$9,376	\$11,311	\$17,585
FTEs		.26	.15	.24

Objective 5.2: Ensure performance of permit requirements

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Inspection and Enforcement	Inspections	Number of Inspections	170	147	84	126
Permit Review	Fees & Escrows	Monies collected and returned. Percentage of escrows returned	20.3%	20.6%	39.2%	115.7%

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$7,594	\$10,091	\$4,376
FTEs		.2	.1	.2

Goal 6: To promote groundwater recharge

Objective 6.1: Encourage the utilization of all appropriate best management practices for erosion and sediment control and stormwater management

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Review	Best Management Practices (BMPs)	Number of BMPs	260	138	75	107
Research						
Monitoring	Infiltration Rate	Report on infiltration rates in established infiltration basins on varying soil types	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$5,322	\$13,814	\$14,695
FTEs		.05	.15	.2

Objective 6.2: Monitor, evaluate and permit plans and programs affecting the water and related land resources of the District

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Review	Permit Review & Findings	Number of permit applications reviewed	155	147	106	179

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$6,328	\$9,724	\$16,420
FTEs		.2	.14	.2

Objective 6.3: Focus on the performance of water and related land resources runoff

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Environmental Review	Environmental Review	Number of Environmental reviews occurring	4	5	3	9
Permit Review	Regulations and Performance Standards	Continued performance and improvement of the complete water resource system	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$1,292	\$826	\$8,348
FTEs		.04	.01	.1

Objective 6.4: Monitor the actual rate of infiltration on various sites in the watershed; the District will rely on its staff to collect and analyze the data

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Research						
Monitoring	Infiltration Rate	Report on infiltration rates in established infiltration basins on varying soil types	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$3,540	\$11,750	\$11,750
FTEs		.02	0.1	.1

Objective 6.5: Review and comment on plans, permits, assessments and studies issued by Federal, state and local units of government

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	
Land & Water Regulation						
Environmental Review	Environmental Review	Number of Environmental reviews occurring	4	10	3	9

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$1,292	\$826	\$2,477
FTEs		.04	.01	.03

Goal 7: To protect and enhance fish and wildlife habitat and water recreational facilities

Objective 7.1: To discourage the loss of wildlife and vegetation and the habitats on which they depend

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Review	Best Management Practices (BMPs)	Number of BMPs	260	138	75	107
	Conservation Easements	Number of easements dedicated	65	283	50	32
Planning						
Annual Assessment, Reporting and Planning	Metro Greenways program	Acres protected	24	4	120	0

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$23,712	\$11,250	\$8,229
FTEs		.6	.15	.11

Objective 7.2: To protect, preserve and manage unique resource areas and unique and/or endangered species of plants and animals that populate these areas from the impact of unplanned development

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Review	Habitat Management Plans	Number of plans	1	0	0	0
	Permit Review & Findings	Number of permit application reviewed	155	147	106	179
Public and Governmental Relations						
Information	Low Impact Development	Number of Drainage Sensitive/ Low impact developments reviewed	115	24	17	5
Involvement	Advisory Committees	Number of meetings	9	6	6	9
	Coordination with Local and County Government	Number of TAC	16	23	14	20

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$17,617	\$13,661	\$21,867
FTEs		.36	.13	.3

Objective 7.3: To focus on the performance of water and related land resources

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Review	Board Review and Action	Number of permit reviews by Board	120	119	86	67
	Regulations and Performance Standards	Continued performance and improvement of the complete water resource system	Yes	Yes	Yes	Yes
Public and Governmental Relations						
Involvement	Regular Meetings	Number of Meeting per year	23	23	20	22

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$27,634	\$26,352	\$27,418
FTEs		.5	.4	.4

Goal 8: To secure the other benefits associated with the proper management of surface and groundwater

Objective 8.1: To implement an education program that addresses each minimum control measure

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Education	Conferences and Workshops	Number of Conferences	2	5	6	11
	General Education	Total public education efforts	3	20	87	63
	Stormwater Ed Materials	Number of materials/events	1	20	23	28

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$8,976	\$55,806	\$45,775
FTEs		.23	.6	.5

Objective 8.2: To support education opportunities for K-12

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Education	HS Presentations		1	1	2	2
	Water Quality Education Grants	Number grants and grant budget	2	1	1	5

Long Term Outcome Measures:

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$1,234	\$409	\$3,738
FTEs		.03	.01	.05

Objective 8.3: To increase and maintain the public interest in and support for District management programs

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Information	Demonstration Projects	Number of demonstration projects	1	1	0	5
	Representation at Special Events	Number of presentations	2	9	13	15

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$7,318	\$1,154	\$1,766
FTEs		.11	.01	.02

Objective 8.4: To reach as large and diverse an audience as possible

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Information	Articles- City News Letters	Number of articles	1	11	18	30
	Web Site	Web Site developed	Yes	13	11	43

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$2,833	\$5,604	\$10,502
FTEs		.07	.06	.1

Goal 9: To conserve natural resources through land use planning, flood control, and conservation projects

Objective 9.1: To protect the health and safety of the present and future people that live within the watershed

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Environmental Review	Environmental Review	Number of Environmental reviews occurring	4	10	3	9
Issues and Complaints	Emergency Work	Number of emergency actions authorized	2	1	1	1
	Issues	Number of issues	65	80	77	75
Permit Inspection and Enforcement	Permits	Number of Permits	55	46	18	28
Permit Review	Best Management Practices (BMPs)	Number of BMPs	260	138	75	107
	Permit Review & Findings	Number of permit application reviewed	155	147	106	179
	Regulations and Performance Standards	Continued performance and improvement of the complete water resource system	Yes	Yes	Yes	Yes
Operations & Maintenance						
Repair	Ditch Repair	Number of projects	2	4	3	11
Planning						
Comprehensive Planning	Comprehensive Plan	Comprehensive Plan (Up Date)	Yes	Yes	Yes	Yes
Public and Governmental Relations						
Involvement	Issue Management Hotline	Number of issues	60	83	77	74
Research						
Inspections	Ditch Inspection		2	4	2	2

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$29,386	\$41,680	\$105,370
FTEs		.7	.6	1.3

Objective 9.2: To provide for opportunities and uses of water and related natural resources of the watershed which are demanded and appropriate for the area

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Review	Regulations and Performance Standards	Continued performance and improvement of the complete water resource system	Yes	Yes	Yes	Yes
Planning						
Comprehensive Planning	Comprehensive Plan	Comprehensive Plan (Up Date)	Yes	Yes	Yes	Yes
	Differentiate Role	Comprehensive Plan - Stream Order map	Yes	Yes	Yes	Yes
Public and Governmental Relations						
Involvement	Comprehensive Plan Development	Number of Workshops/Reviews	5	1	4	6
	Coordination with Local and County Government	Number of TAC meetings	16	23	14	20
	Hearings	Number of Hearings	2	2	4	3
	Local Water Plan Review and Approval	Number of Local Plans reviewed	1	1	9	9
	Plan & Permit Coordination	Number of TEP meetings	16	18	17	23
	Stakeholder Meeting	Number of Meetings	2	13	138	48

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$15,225	\$14,016	\$34,740
FTEs		.2	.1	.3

Objective 9.3: To prevent unacceptable damage to the water and related natural resources of the watershed

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Environmental Review	Environmental Review	Number of Environmental reviews occurring	4	10	3	9
Permit Inspection and Enforcement	Inspections	Number of Inspections	170	147	84	126
	Permits	Number of Permits	55	46	18	28
Permit Review	Best Management Practices (BMPs)	Number of BMPs	260	138	75	107
	Board Review and Action	Number of permit reviews by Board	120	119	86	67
	Conservation Easements	Number of easements dedicated	65	283	50	32
	Permit Review & Findings	Number of permit application reviewed	155	147	106	179
	Regulations and Performance Standards	Continued performance and improvement of the complete water resource system	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$54,889	\$54,114	\$66,847
FTEs		1.53	.74	.9

Goal 10: To use sound scientific principals for the protection of public health and welfare, and the provident use of natural resources

Objective 10.1: To monitor the hydrology of Coon Creek and key water resources

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Research						
Monitoring	Infiltration Rate	Report on infiltration rates in established infiltration basins on varying soil types	Yes	Yes	Yes	Yes
	Lake Level	Water Atlas report on trends in lake level elevations	Yes	Yes	Yes	Yes
	Precipitation	Water Atlas report on precipitation amounts, frequency and distribution	Yes	Yes	Yes	Yes
	Stream Level	Water Atlas report on annual hydrographs and peak elevations for various locations within the watershed	Yes	Yes	Yes	Yes
	Wetland Hydrology	Water Atlas report on wetland hydrology	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$11,620	\$20,185	\$20,185
FTEs		.07	.6	.6

Objective 10.2: To model updated hydrologic and hydraulic data

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Research						
Modeling	HydroCAD	Convert HydroCAD to XPSWMMM	Yes	Yes	Yes	Yes
	Water Budget	Updated Budget	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$4,579	\$13,000	\$13,000
FTEs		.04	.13	.13

Objective 10.3: To monitor the water quality of Coon Creek and key water resources

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Research						
Monitoring	Lake Water Quality	Water Atlas report on lake water quality trends	Yes	Yes	Yes	Yes
	Lower Coon Creek Water Quality	Water Atlas report on Stream water quality trends	Yes	Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$2,650	\$5,540	\$5,540
FTEs		.01	.2	.2

Goal 11: To ensure that the continued planning and management of Coon Creek Watershed District is responsive to the needs and concerns of an informed public

Objective 11.1: To provide information to the public and to decision makers
Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Environmental Review	Environmental Review	Number of Environmental reviews occurring	4	10	3	9
Permit Review	Notice of Decision and Status of Application	Number of Decision Notices prepared	155	203	101	209
Public and Governmental Relations						
Information	Developer's Handbook: Principles and Standards	Development of Application packet and Handbook	1	0	1	0
	Low Impact Development	Number of Drainage Sensitive/ Low impact developments reviewed	115	24	17	5
	Model Ordinance Principles/Standards	Number of Ordinances adopted	1	1	1	0
	Pre-application Conferences/Land Owner Contacts	Number of pre-application conferences	55	41	29	19
	Watershed District Rules and Standards		Yes	Yes	Yes	Yes
Involvement	Advisory Committees	Number of meetings	9	6	6	9
	Agenda Distribution	Number on distribution list	40	41	43	45
	Comprehensive Plan Development	Number of Workshops/Reviews	5	1	4	6
	Open Mike	Number of open mike presentations	4	2	0	0
	Regular Meetings	Number of Meeting per year	23	23	20	22
	Stakeholder Meeting	Number of Meetings	2	13	138	48

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$35,608	\$46,394	\$65,201
FTEs		.6	.5	.7

Objective 11.2: Coordinate the policies, plans, programs, and regulations of all state and local agencies are consistent with the comprehensive management plan

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Involvement	Coordination with Local and County Government	Number of TAC	16	23	14	20
	Local Water Plan Review and Approval	Number of Local Plans reviewed	1	1	1	9
	Plan & Permit Coordination	Number of TEP meetings	16	18	17	23

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$11,854	\$7,770	\$11,232
FTEs		.16	.08	.10

Objective 11.3: To ensure that the key issues are identified and that acceptable solutions are included in the plan

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Land & Water Regulation						
Permit Review	Board Review and Action	Number of permit reviews by Board	120	119	86	67
Planning						
Annual Assessment, Reporting and Planning	Annual Report and Plan	Board review and adoption; Submittal to BWSR	Yes	Yes	Yes	Yes
Budgeting and Program Planning	Annual Priorities	Budget goals and themes	Yes	Yes	Yes	Yes
Public and Governmental Relations						
Involvement	Annual Open House Meeting	Completed meeting and attendance	Yes	Yes	Yes	Yes
	Coordination with Local and County Government	Number of TAC	16	23	14	20

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$27,333	\$35,872	\$40,792
FTEs		.6	.4	.4

Objective 11.4: To provide for active involvement of the public and related units of government in developing and implementing water management plans and activities

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Involvement	Issue Management Hotline	Number of issues	60	83	77	74
	Open Mike	Number of open mike presentations	4	2	0	1

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$5,145	\$3,626	\$3,815
FTEs		.12	.04	.04

Objective 11.5: To provide opportunities for the public to participate in water quality activities

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Involvement	Advisory Committees	Number of meetings	9	6	6	9
	Citizen Assisted Monitoring Program (CAMP)	Number of participants	1	1	1	1
	Comprehensive Plan Development	Number of Workshops/Reviews	5	1	4	6
	Hearings	Number of Hearings	2	2	4	3
	Lakeshore Homeowners Associations	Number of contacts with Lake Association	1	6	13	23
	Stakeholder Meeting	Number of Meetings	2	13	138	48

Means & Associated Resources

	2005	2006	2007	2008
Funding		\$4,483	\$3,635	\$10,847
FTEs		0.08	.04	.10

Objective 11.6: To provide opportunities for the public to participate in water quality activities

Long Term Outcome Measures:

Strategy/Program	Activities/BMPs	Outputs	2005	2006	2007	2008
Public and Governmental Relations						
Involvement	Citizen Assisted Monitoring Program (CAMP)	Number of participants	1	1	1	1
	Creek Clean up- Adopt-A-Stream Programs	Occurrence		Yes	Yes	Yes

Means & Associated Resources

	2005	2006	2007	2008
Funding			\$1,130	\$1,695
FTEs			0.02	.02