

# Coon Creek Watershed District

12301 Central Avenue NE Phone: 763.755.0975 Suite 100 Fax: 763.755.0283 Blaine, MN 55434 www.cooncreekwd.org

Approved by the Coon Creek Watershed District Board of Managers April 23, 2012

## **Coon Creek Watershed District**

#### Managers and Staff 2011-12

#### **Board of Managers**

William MacNally Byron Westlund Brad Johnson Warren Hoffman Scott Bromley Office President Vice President Secretary Treasurer At-Large

#### Staff

Tim Kelly Ed Matthiesen Michelle Ulrich Dawn Doering Tom Gile TJ Helgeson Jon Janke Diana Shonyo

#### Position

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

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# **<u>1. Reporting Requirements</u>**

About the Performance Report and Plan	The Coon Creek Watershed District (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 here.
Watershed Act	<ul> <li>The Minnesota Watershed Act (M.S. 103D.351) requires the District to prepare a yearly report of</li> <li>The financial conditions of the District</li> <li>The status of all projects</li> <li>The business transacted by the District</li> <li>Other matters affecting the interests of the District</li> <li>The District plans for the succeeding year</li> </ul>
Metropolitan Water Management Act	<ul> <li>The Metropolitan Water Management Act (M.S. 103B.231)</li> <li>requires a yearly report similar to the Watershed Act but stipulates specific financial and activity items to be reported.</li> <li>Roster and contact information for the Board and Advisory Committees</li> <li>Various financial expenditure information</li> <li>Permit and enforcement activity</li> <li>Annual plan</li> <li>Status of local plan adoption</li> <li>Summary of monitoring data</li> <li>Status of wetland banking</li> </ul>
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	<ul> <li>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 the Act. All LGUs that receive funding through the Natural Resource Block Grant (NRBG) program administered by BWSR are required to report on: <ul> <li>The number of WCA applications</li> <li>Replacement plans</li> <li>Size of wetland impacts and losses</li> <li>Use of credits for replacement</li> <li>Exemption determinations</li> <li>Replacement wetlands</li> <li>Enforcement actions</li> <li>Administrative and technical training</li> </ul> </li> </ul>

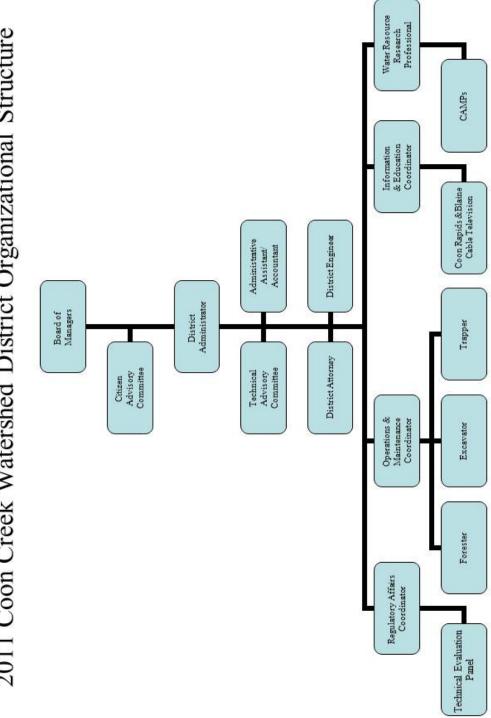
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# 2. <u>Coon Creek Watershed District At a Glance</u>

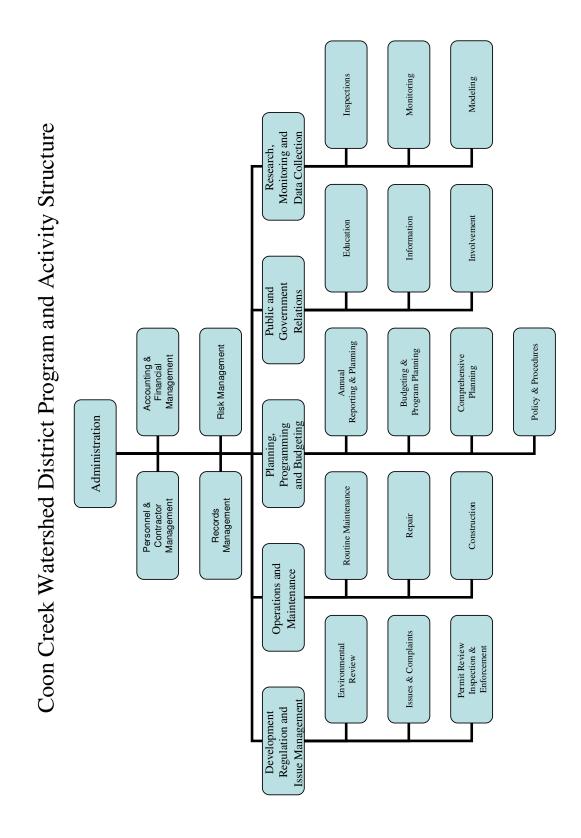
Introduction	The Coon Creek Watershed District (District) was created in 1959. The Watershed encompassed 92 square miles of the northern edge of the Twin Cities Metropolitan Area and is located entirely within Anoka County. In December 14 <sup>th</sup> , 2011, the Board of Water and Soil Resources ordered the District to include the northern areas of the dissolved Six Cities Water Management Organization. These approximately 14 square miles include parts of Coon Rapids, Fridley, and Spring Lake Park. 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	<ul> <li>A Board of Managers administers the District. The Board is composed of five members representing different areas of the District. Each Manager</li> <li>Serves a three-year term, staggered</li> <li>Is nominated by his or her local unit of government</li> <li>Is appointed by the Anoka County Board</li> </ul> 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. Watershedwide policy and direction are formulated and provided for field implementation through District and Municipal activities.





2011 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 water and related land resources.
	<ul> <li>The watershed uses a multiple-use land management approach to pursue eleven goals. To pursue the goals the Coon Creek</li> <li>Watershed District operates six programs which oversee 22 basic tasks: The programs are: <ol> <li>Administration</li> <li>Development Regulation and Issue Management</li> <li>Operations and Maintenance</li> <li>Planning, Programming, and Budgeting</li> <li>Public and Governmental Relations</li> <li>Research, Monitoring, and Data Collection</li> </ol> </li> </ul>
Link to District Budget	These programs are developed to provide better public service and sustainable land stewardship practices. They are also the context for budgeting and tracking District activities and tasks.
Adjustments to Comprehensive Plan	The annual goals for our 2011 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.



2011 Annual Report & 2012 Annual Plan

# 4. District Program Review

Coon Creek Watershed District is managed through six programs:

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



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## **Program Description**

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

## **Activities and Outcomes**

The Administration Program consists of six activities:

- 1. Board of Managers
- 2. Records
- 3. Contract and Personnel Administration
- 4. Training and Seminars
- 5. Financial Management
- 6. Risk Management

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

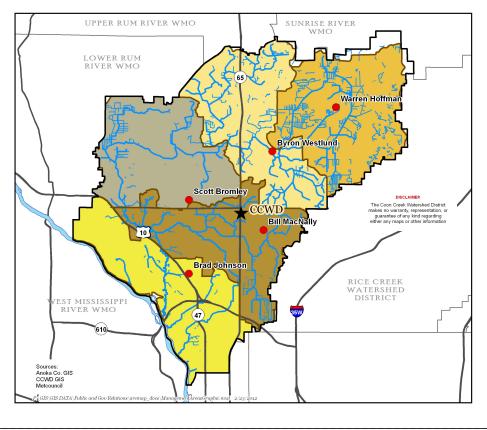
The District is governed by a Board of Managers. The Board is composed of five members representing different geographic areas of the District. Each Manager serves a staggered three-year term, is nominated by his or her local unit of government, and is appointed by the Anoka County Board.

				Current	
Name		2011 Office	Appointed	<b>Term Ends</b>	Phone
Scott	Bromley	At-Large	2011	2014	(763) 754-3820
Warren	Hoffman	Treasurer	2000	2013	(763) 434-5729
Brad	Johnson	Secretary	2011	2014	(612) 543-0665
Bill	MacNally	President	2003	2013	(763) 951-2667
Byron	Westlund	Vice President	2006	2012	(763) 427-7500

#### **Principle Place of Business**

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

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



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#### **Oath of Office**

Minnesota Statute 103D.315 requires all Managers to take and 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 during re-appointment when that occurs.

### <u>Minutes</u>

Minnesota Statute 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 online at <u>www.cooncreekwd.org</u> >about us>board information>past minutes.

#### **Records Retention & Disposal**

Administer Records Retention & Disposal Policy and procedure:

Program	Record	Retention	2010	2011	2012	2013	2014
_		(Yrs)					
Administration	Expired	10	1999	2000	2001	2002	2003
	Service						
	Contracts						
	Financial	6	2004	2005	2006	2007	2008
	Details						
	Employment	1	2009	2010	2011	2012	2013
	Apps &						
	Resumes						
	Separated	5	2004	2005	2006	2007	2008
	Personnel						
	files						
	Timesheets	6	2003	2004	2005	2006	2007
	Contracts &	10	2000	2001	2002	2003	2004
	Leases						
Operations	Bids & specs	6	2003	2004	2005	2006	2007
Planning	Budget work	2	2007	2008	2009	2010	2011
	papers						
I&E	Conference &	6	2004	2005	2006	2007	2008
	Workshop						
	Info						

#### **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 website (<u>www.cooncreekwd.org</u>). The meeting schedule is also stipulated in the District rule. Board meetings are at:

Address	Bunker Hills Activity Center 550 Bunker Lake Blvd NW
Phone	Andover, MN 55304 763-757-3920
Fax	763-755-0230

In 2011 the Board met 20 times; one was a special meeting held regarding the petition to BWSR for the expansion of the CCWD boundary into the northern areas of the dissolved Six Cities Watershed Management Organization. Five regularly scheduled meetings were cancelled. All of the cancelled meetings occurred on the second Monday of the month.

Outcome	2010	2010	2011	2011	2012	2013
	Budget	Actual	Budget	Actual	Forecast	Forecast
Number of	22	18	18	20	22	22
Meetings						
Per Diem	\$ 6,300.00	\$ 5,800.00	\$ 5,800.00	\$ 5,800	\$ 6,100.00	\$

#### **Board Business**

The Board of Managers reviewed and acted on 293 separate items of business in 2011. These actions were up slightly (104%) from 2010. The greatest change was seen in information (153%) and discussion items (118%) mostly as a result of the increased emphasis on water quality and the boundary amendment process.

Outcome:	2010	2010	2011	2011	2012	2013
Agenda Items	Forecast	Actual	Forecast	Actual	Forecast	Forecast
Policy	160	143	145	149	145	150
Permit Review	40	39	40	40	40	45
Discussion	40	49	45	58	45	50
Information	25	30	30	46	30	30
Total	265	261	268	293	260	275

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## **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).

Notice	200	9	201	0	2011	2012	2013
Request for			1			2	
Bids							
Boundary	1		1				
Budget	1		1		1	2	2
SWPPP	1		1		1	2	2
Meeting							
Request for	1				1		2
Interest – Eng							
Request for	1				1		2
Interest – Legal							
Rules	1					1	
Legal Notices	6		4		4	5	4
Unit Cost							
Budget	\$ 3,0	90.00	\$ 3,0	90.00	\$ 3,142.00	\$ 3,309.50	\$ 3,478.00

### **Advisory Committee Appointments**

M.S. 103D.331 requires that the Board of Managers annually appoint an advisory committee to advise and assist the Board on matters affecting the interests of the watershed district. The Advisory Committee must have at least the following members

Measures	2009	2010	2011	2012	2013
Board Action	-	-	-	Scott Bromley	
Anoka County	Robyn West	Robyn West	Carol LeDoux	Carol LeDoux	
Anoka Conservation	Jim Lindahl	Jim Lindahl	Jim Lindahl	Jim Lindahl	
District					
Conservation				Gary Nereson	
Organization				Crooked Lake	
				Area Association	
Agriculture Organization					
Andover				Diana Perron	
Blaine				Michael Von	
Columbus				Wald	
Coon Rapids				Roger Johnson	
				Bill Kurdziel	
				Jeff Simon	
Fridley	-	-	-	Donna Bahls	
Ham Lake					
Spring Lake Park	-	-	-		

# **Technical Advisory Committee**

Minnesota Statute 103D.337 requires that the District establish a technical advisory committee consisting of representatives of affected cities, county, and soil and water conservation districts.

Organization	2009	2010	2011	2012	2013
Number of meetings	2	6	6	6	6
Anoka Conservation	Chris Lord	Chris Lord	Chris Lord	Chris Lord	Chris Lord
District					
Andover	Todd Haas	Todd Haas	Todd Haas	Todd Haas	Todd Haas
Blaine	Jim Hafner	Jim Hafner	Jim Hafner	Jim Hafner	Jim Hafner
Columbus	Elizabeth	Elizabeth	Elizabeth	Elizabeth	Elizabeth
	Mursko	Mursko	Mursko	Mursko	Mursko
Coon Rapids	Doug Vierzba	Doug Vierzba	Doug Vierzba	Doug Vierzba retires	successor
Fridley				Jim	Jim
				Kosluchar	Kosluchar
Ham Lake	Tom Collins	Tom Collins	Tom Collins	Tom Collins	Tom Collins
Spring Lake Park				Phil Gravel, Stantec	Phil Gravel, Stantec
BWSR	Melissa	Melissa	Melissa	Melissa	Melissa
	Lewis	Lewis	Lewis	Lewis	Lewis
DNR	Kate Drewry	Kate Drewry	Kate Drewry	Kate Drewry	Kate Drewry
MPCA	Denise	Denise	Brooke	Brooke	Brooke
	Leezer	Leezer	Asleson	Asleson	Asleson

# **Technical Evaluation Panel**

Minnesota Statute 103G.2242 Subdivision 2 requires the District establish a Technical Evaluation Panel to assist or make determination on questions concerning the public value, location, size, or type of a wetland.

Organization	2009	2010	2011	2012	2013
Number of meetings	34	34	24	33	33
Anoka Conservation	Dennis	Dennis	Dennis	Dennis	Dennis
District	Rodacker	Rodacker	Rodacker	Rodacker	Rodacker
BWSR	Lynda	Lynda	Lynda	Lynda	Lynda
	Peterson	Peterson	Peterson	Peterson	Peterson
US Army Corps of	Tim Fell	Tim Fell	Tim Fell /	Andy	Andy
Engineers			Marie	Beaudet	Beaudet
			Kopka		
Andover	Todd Haas	Todd Haas	Todd Haas	Todd Haas	Todd Haas
Blaine	Jim Hafner	Jim Hafner	Jim Hafner	Jim Hafner	Jim Hafner
Columbus			Elizabeth	Elizabeth	Elizabeth
			Mursko	Mursko	Mursko
Coon Rapids	Dave Full	Dave Full	Dave Full	Dave Full	Dave Full
				retires	successor
Fridley			Jim	Jim	Jim
			Kosluchar	Kosluchar	Kosluchar
Ham Lake	Tom Collins	Tom Collins	Tom Collins	Tom Collins	Tom Collins
Spring Lake Park			TKDA	TKDA	TKDA
DNR	Kate Drewry	Kate Drewry	Kate Drewry	Kate Drewry	Kate Drewry
MPCA	Paul Estuesta	Paul Estuesta	Shawn	Shawn	Shawn
			Nelson	Nelson	Nelson

### Personnel

<u>Staff</u>	Position	FTE	Years of Service	2011 Training Sessions	2011 Training (Hrs)
Tim Kelly	District Administrator	1.0	22.0	1	8
Diana Shonyo	Administrative Assistant	1.0	3.5	1	8
Dawn Doering	Information and Education Coord.	1.0	5.5	1	6
Tom Gile	Regulatory Affairs Coordinator	1.0	3.5	3	40
T.J. Helgeson	On Leave		1.0		
Jon Janke	Operations & Maintenance Coord.	1.0	0.75	4	42

#### **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 seven 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 & Services (RRS)

Service	Provider	2009	2010	2011	2012	2013
Engineering	Wenck &	SIP	RRS	SIP	RRS	SIP
	Associates					
Legal	Michelle	SIP	RRS	SIP	RRS	SIP
	Ulrich					
Accounting	Anoka	RRS		RRS		RRS
	County					
GIS	GIS Rangers		RRS	RRS	RRS	
Water	Anoka	RRS	RRS	RRS	RRS	RRS
Quality	Conservation					
	District					
Trapping	Rick Johnson	SIP	RRS	RRS	RRS	SIP
Tree	P & C Tree	SIP	RRS	RRS	RRS	SIP
Services	Service					

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## **Other Service Providers**

		Formal	Term	
Service	Provider	Agreement?	(yrs)	<b>Current?</b>
Audit Service	Minnesota State Auditor	Yes	1	Yes
Banking: Magic Fund	US Bank	No	na	Yes
Beaver Control	Ricks Deer & Beaver	No	2	Yes
Computer Support	Techstar / Solution Builders 8/11	Yes	1	Yes
Domain Name:	Network Solutions	Yes	9	Yes
Equipment Maintenance	Metro Sales	Yes	1	Yes
GIS Services	Flat Rock Geographics	Yes	1	Yes
Insurance	Bearence Management Group	Yes	1	Yes
License ArcView	ESRI	Yes	1	Yes
License for use of digital photos	Anoka County	Yes	1	Yes
Maintenance Office	A-1	No	1	Yes
Meeting Room Rental	Anoka County Parks	No	1	Yes
Membership	League of Minnesota Cities	Yes	1	Yes
Mobile Phone Service	Verizon	Yes	2	Yes
Mobile Phone Service - Data	T - Mobile	Yes	2	Yes
Monitoring	Anoka Conservation District	Yes	2	Yes
Official Newspaper	ECM Publishers	No	1	Yes
Payroll	Anoka County	Yes	na	Yes
Phone System	Integra Telecom, Inc	Yes	3	Yes
Photocopier Rental	Metro Sales	Yes	5	Yes
Professional Organization	MN Assoc. Watershed Districts	No	1	Yes
Professional Service: Engineer	Wenck & Associates	Yes	2	Yes
Professional Service: Legal	Michelle Ulrich	Yes	2	Yes
Rental Space	Blaine Office Partners	Yes	4	No
Software Maintenance	Solbrekk	No	1	Yes
Telecommunications	Avenet LLC (GovOffice)	No	1	Yes
Tree Removal	P&C Tree Service	Yes	2	Yes

# **Training**



## **Conferences/Seminars & Training**

Measures	2009	2010	2011	2012	2013
Hours of Training	88	96	104	100	100
Number of classes/conferences	4	11	12	5	5
Budget	\$ 6,855.00	\$ 6,855.00	\$ 2,645.00	\$ 3,245.00	\$ 3,245.00

## **Required Certifications & Training**

Certifications	2009	2010	2011	2012	2013
Best Management	*				
Practices	•				
Construction Site					*
Management					
Design of Construction				*	
SWPPPs					
Illicit Discharge		*			
Detection & Elimination					
P8 Modeling			*		
Regulatory Enforcement	*				
Volume Control	*				
Wetland Delineation	*			-	

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### **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	2009	2010	2011	2012	2013
Annual Review of Fund	1/12/09	1/11/10	1/10/11	1/9/12	1/14/13
Equity					
Board approval of fund equity designation	1/12/09	1/11/10	1/10/11	1/9/12	1/14/13
Amount	\$350,000	\$323,000	\$250,000	\$300,000	\$300,000
Acknowledgement in	Yes	Yes	Yes	Yes	
Minutes					

#### **Annual Financial Audits**

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

Task	2009	2010	2011	2012	2013
Status	Ordered	Ordered	Yes	Yes	Yes
Ordered	12/14/09	12/13/10	12/15/11	1/14/13	1/13/14
Entrance Interview	2/13/09	1/5/11	2/7/12		
Board review of	12/14/09	3/14/11	4/23/12	3/26/12	3/25/13
Auditor comments	12/14/09	5/14/11	4/23/12	5/20/12	5125115
Final Audit	4/13/10	4/30/11	4/30/12	4/30/13	4/30/14
A	Naad	200	0 2010	2011 20	10 0010

Audit	Issues	Need	2009	2010	2011	2012	2013	
<b>Year</b> 2001	Accounting of Escrows (01-02)	Closer Coordination with Anoka County Finance – Escrows	Not Resolved	Resolved	No			
2004	Capital Assets Retirement (04-01)	Retire fully depreciated assets	Resolved		Issues			
2006	Preparation of Financial Statements (06-01)	Internal preparation of annual financial statements	Resolved					
2007	Audit Adjustments (07-01)	Ensure that financial reports adjustments are reported according to GAAP	Resolved					

Financial Condition of Coon	Citer watershe			
Assets	YE 2010 Amt	Chng	YE 2011 Amt	Chng
Cash & Investments	1,380,986	-35%	1,447,074	7.0%
Receivables	21,310	7%	31,777	49.1%
Special Assessments			9,000	-
Due from Other Governments	41,213	401%	7,000	-83.1%
Fixed Assets	27,143	218%	28,088	3.5%
Total Assets	1,470,652	-32%	1,552,939	5.6%
Liabilities				
Accts Payable	85,311	102%	94,835	11.2%
Salaries Payable	11,600	33%	47,773	311.8%
Due to Other Governments	1,180	-97%	300	-74.6%
Deferred revenue			49,281	-
Funds Held in trust	1,034,031	-33%	915,697	-11.4%
Long Term Liabilities	37,466	11%	26,627	-28.9%
Total Liabilities	1,169,588	-30%	1,134,513	x%
<b>D</b> 1 <b>D</b> 4				
Fund Equity	07.1.10	01001	<b>0</b> 0,000	2.501
Investment in Gen fixed Assets	27,143	218%	28,088	3.5%
Unrestricted	274,129	-43%	390,338	42.4%
Total Net Assets	301,272	-38%	418,426	38.9%

## Financial Condition of Coon Creek Watershed District

## **Change in Net Assets Governmental Activities**

	2	010	2011	Pct Change
Revenues				
Program Revenues				
Charges, Fees & Other	\$	49,266	\$ 51,831	5.2%
Operating Grants		75,873	7,910	-89%
General Revenue				
Property Taxes		559,041	900,830	60%
State aid		30,135	55,178	83.1%
Investment Income		1,726	606	-65%
Miscellaneous		1,442	4,427	207%
Total Revenues	\$	717,483	\$ 1,020,782	42%
Expenses				
Program Expenses				
Conservation of Natural Resources		905,220	903,628	-0.2%
Increase (Decrease) in Net Assets		(187,737)	117,154	162.5%
Net Assets - January 1		488,801	301,272	-38.4%
Net Assets - December 31		301,064	418,426	38.9%

### **Capital Assets at Year-End**

	2010		2011	
Equipment Less: Accumulated depreciation		63,093 5,950.00)	\$	71,111 (43,023)
Net Capital Assets	\$	27,143	\$	28,088

Class	Туре	Location	Expected Life (yrs)	Pct Deprec.	Condition	Need	Replace Cost
Office	Conf Table	Office	20	108%	Poor	Replace	\$3,300.00
Equipment	& Chairs	Conf				-	
		Room					
	2-Drawer File	Office	3	90%	Poor	Dispose	
	Book Cases (X4)	Office	20	100%	Fair	None	
	Recording Box	Storage	10	137%	Good	Dispose	
	Mics, Mixer Recorder	Storage	5	275%	Fair	Dispose	
Data	Computers	Office	3	128%	Poor	Replace	?
Processing	(X5)						
Field	Planimeter	Office	5	236%	Good	None	
Equipment							
	Soil Probe	Office	10	193%	Poor	Replace	\$94.00
	Level	Office	10	193%	Good	None	
	Soil Chart	Office	10	193%	Fair	None	
	Compass	Office	10	192%	Fair	None	
	Magnifier	Office	10	186%	Fair	None	
	Tape	Office	10	177%	Poor	Replace	\$28.00
	Auger	Office	10	162%	Fair	None	
	Camera	Office	3	91%	Fair	None	
Monitoring	Data Loggers(x5)	Field with rain gages	4	150%	Poor	Replace	\$105.00
	Rain Gage(x5)	Field	10	127%	Fair	Replace	\$112.00
	WL-40s (x8)	Field	5	236%	Fair	Replace 2/yr	\$235.00x2 = \$470.00

## **Condition of Fully Depreciated Capital Assets**

#### Analysis of the District at the Fund Level

As the District completed2010, the governmental funds reported a combined fund balance of \$382,329. Revenues for the District's governmental funds were \$1,007,456, while total expenditures were \$915,412.

## **General Fund**

The general fund includes the primary operations of the District in providing services to citizens and some capital outlay projects.

The following schedule is a summary of the General Fund revenues:

			Change	
	Year Ended Dece	ember 31	Increase	Percent
Function	2011 2010		(Decrease)	(%)
Taxes \$	859,443 \$	537,107 \$	322,336	60%
Fees & Charges	51,831	49,266	2,565	5%
Intergovernmental	61,344	32,113	29,231	91%
Investment Income	606	1,726	(1,120)	-65%
Miscellaneous & Other	4,427	1,442	2,985	207%
Total General Fund Revenues	977,651 \$	621,654 \$	355,997	57%

Total General fund revenues increased by \$355,997, or 57.3 percent from 2010. The mix of property tax and state aid can change significantly from year to year. In 2011, the District's tax revenue increased by \$322,336 compared to 2010. Intergovernmental revenue, which increased by \$29,231 in total, mostly due to state aid, a component of intergovernmental revenue, which increased by \$25, 43, due to an increase in the tax levy and state aid receipts. An environment of falling interest rates in 2011 resulted in decreased interest interest income of near 65%. The increase in fees and charges are directly related to the increase in real estate development activity.

The following summarizes General Fund Expenditures:

			Change		
	Year Ended Dece	ember 31	Increase	Percent	
Function	2011	2010	(Decrease)	(%)	
Conservation of Natural Resources \$	865,210 \$	777,669 \$	87,541	11%	

## **Budget Highlights**

- Actual revenues were \$38,318 more than expected
- Actual expenditures were \$26,344 over the budgeted amount and are subscribed to the wet conditions and flooding that occurred in the first part of the year.
- No significant changes were made in the original adopted budget.

# Implications of Recent Administrative Trends for the Management of the Watershed (2011 to 2016)

Trend	Implications
Tax Levies	The District relies on property tax levies, authorized by underlying state statutes, for a significant portion of its revenue.
Number of Meetings per Year	While the amount of business the Board conducts has actually increased, the need to always meet twice per month during the winter has decreased.
Annual Audit	The amount of detail and the audit standards from the GASB have led to increased time and complexity in preparing and reporting for the annual audit.
Smaller Year End Balances/ Increased cash demands for water quality and ground water management	The District has resolved its excess fund balance issue per State Auditor recommendation. That decrease has in turn restricted the funds available to respond to disasters and emergencies such as the tornado damage of 2008.
Aging Monitoring Equipment	Monitoring equipment (rain gages and WL-40s) that were expected to last 4 to 5 years are now in their 12 - 15 <sup>th</sup> year of service. 2-3 of these devices per year have begun to fail.

<b>Expectations About Fut</b>	ure Administration of the Watershed
Expectations	Explanation
Fewer Board Meetings with longer agendas	The District and the public can expect that the Board of Mangers will convene fewer meetings in 2012 for at least part of the year.
Increased time involved in annual audit	With staffing changes and constraints at both the County and the OSA, increased time will be devoted to preparing and managing the audit.
More Involved Budget Discussions/Increased Taxes	With the decline in land values and an increase in the needs for maintenance and addressing water quality concerns budget discussions and financing alternatives will contribute to more involved discussions and review of the budget
Increased failure of key monitoring equipment	Monitoring equipment (rain gages and WL-40s) that were expected to last 4 to 5 years are now in their 12 - 15 <sup>th</sup> year of service. 2-3 of these devices per year have begun to fail.

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# Immediate Needs (2013 – 2014)

Need	Explanation
Review of Economics and Financing of Watershed Operations	Future demands on water resource operations will require money. Any reasonable increase in taxes or grants will most probably only fund a small portion of the physical work and monitoring that will need to be done. A review of economic and funding options for District operations would be appropriate.
Replace monitoring equipment and other assets	Begin budgeting either for replacement of monitoring equipment or partial replacement annually

Intermediate Needs (2014 – 2017)				
Need	Explanation			
Valuation of Groundwater	The quantity and economic value of the groundwater supplies available			
Stock	to the District need to assessed and valued.			

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# **DEVELOPMENT REGULATION & ISSUE MANAGEMENT**

## **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 District in an orderly and informed fashion.

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

- 1. Environmental Review which includes comments on DNR and Corps of Engineers permits
- 2. Permit Inspection and Enforcement
- 3. Permit Review
- 4. Permits
- 5. Final Inspections, Project Close Outs & Escrow Returns



Inspection southwest of Jefferson Street and 242 reconstruction

# **DEVELOPMENT REGULATION**

## **Environmental Review**



Perimeter control needed for Hwy 242 reconstruction in Blaine

#### 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 District goals, objectives, and standards.

Measures	2010	2011	2012	2013	2014
Number of	2	0	1	2	1
Environmental					
Reviews					
DNR Permits	1	1	1	1	1
EAWs	1	0	1	0	1

## **DEVELOPMENT REGULATION**

#### 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

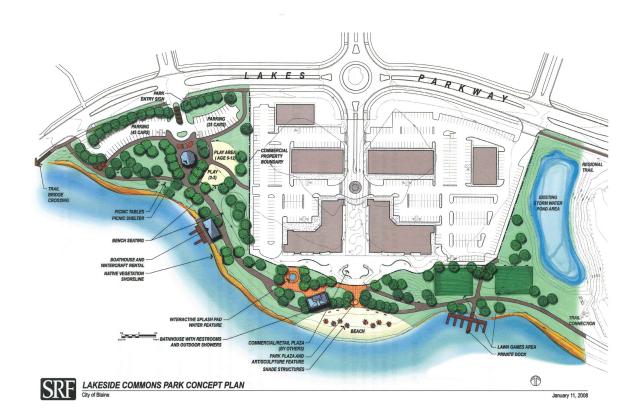
Violation	2010	2011	2012	2013	2014
Number of	167	142	150	160	170
Inspections					

#### **Enforcement Issues**

Violation	2010	2011	2012	2013	2014
Failure to comply	2	1	2	2	2
with permit or					
approved plan					
Failure to maintain or	12	8	10	10	9
repair BMPs or STPs					
Failure to maintain	13	11	10	10	10
site in Good					
condition					
Failure to meet	3	2	3	3	3
standards					
Failure to use BMPs	12	15	10	10	10
to stop erosion &					
sedimentation					
False information	0	0	0	0	0
Illicit Connection	2	0	2	2	2
Illicit Discharge	7	7	10	10	11
Obstruction	4	4	3	3	3
Submittal of As Built	1	0	1	1	1
Wetland Drainage	1	0	1	0	0
Wetland Excavation	1	1	1	1	1
Wetland Fill	4	5	5	5	5
Work without a	2	1	2	2	2
permit					
Total	63	55	60	59	59

## **Permit Review**

# **DEVELOPMENT REGULATION**



#### Description

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

Measure	2010	2011	2012	2013	2014
Number of Pre- application meetings	20	21	21	23	25
Number of Permit Applications	79	42	60	60	60
Number of Permit Reviews by Board	35	34	35	35	35

## **DEVELOPMENT REGULATION**

## Description

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

Measure	2010	2011	2012	2013	2014
Number of Pre- Construction Meetings	10	6	10	12	15
Number of Best Management Practices	130	138	140	140	140
Certificates of No-Loss	0	4	0	1	1
WCA Exemptions	1	0	1	1	1
Variances	0	1	0	0	0
Permits	5	19	25	30	30
Permit Renewal/ Extension	8	4	4	3	3

#### Description

This activity reviews completed development and other construction projects for compliance and adherence to the approved plans. The activity also includes a tabulation of District incurred costs for review, inspection and any site repair or stabilization that may have been needed prior to returning the balance of escrows held by the District.

Measure	2010	2011	2012	2013	2014
Final Inspections Conducted	115	95	90	80	80
Fees withheld by District	\$43,763	\$50,608	\$50,000	\$30,000	\$30,000
Number of Projects closed out	115	95	90	80	80
Value of Escrow Returned	\$572,067	\$88,374	\$90,000	\$90,000	\$90,000

Trend	Implications
Decline in the number of Environmental Reviews	Fewer large projects requiring EAWs and fewer projects that require state permits.
Increase in Issues and Complaints	More staff time will be dedicated to issue and complaint management. Particularly in the areas of compliance, water quality, wetlands and availability and maintenance.
Increasing emphasis on water quality and groundwater	Analysis, planning, and review of sites for development or modification will require an increased awareness of the overall hydrology of the site, the effect of the proposal on the local hydrology and how to integrate existing hydrologic tendencies into the proposal.
Decrease in the number of permit reviews/ Increase in project complexity	While the number of projects requiring a permit or review has decreased the complexity of the reviews resulting from drainage, water quality and wetland issues has increased as has the need to exercise care and provide assistance to applicants seeking approval.

Expectations about the	future for Regulation of the Watershed (2012 to 2014)
Expectations	Explanation
Increased enforcement and preventive inspections	With the drought conditions and the development that is occurring, increased enforcement and inspection time per application can be expected.
Number of applications may increase slightly	There are several smaller projects that are being considered within the watershed. Their success may depend on early involvement by the watershed district in designing the stormwater system.
Increased complexity in review and approval	With the drought, complexity has increased with concerns about water levels and water availability. As the District moves more into the water quality era, more time will be involved in increasingly sophisticated water quality review

Immediate Needs (2015 – 2017)					
Need	Explanation				
Amend rules to require 1.5" of infiltration from 1"	1.5 inches is the 95 <sup>th</sup> percentile of storm recurrence within the watershed				

# **OPERATIONS & MAINTENANCE**

### **PROGRAM DESCRIPTION**

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

The Operations & Maintenance program consists of the following activities:

- 1. Routine Maintenance
- 2. Non-Routine Maintenance
- 3. Repair and Rehabilitation
- 4. Retrofit and Construction



Ditch 59 at Waconia, Ham Lake

# MAINTENANCE

# **Annual Inspections**



#### Description

The purpose of the annual inspection 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 public drainage system to taking elevations and cross sections every 100 feet, photographing the ditch channel, and comparing to established performance standards based on functional classification of the ditch.

#### Measure / Outcome

Measures	2010	2011	2012	2013	2014
Inspect 20 % of the system	15.7%	19.9%	22.4%	21.8%	20.2%
Miles Inspected	19.64	24.95	28.07	27.29	25.23

Facility	2010	2011	2012	2013	2014
	Miles	Miles	Miles	Miles	Miles
Ditch	Inspect	Inspect	Inspect	Inspect	Inspect
11		5.36			
17 (Springbrook)		4.90			
20				3.01	
23			1.87		
37					4.15
39	3.27				
41 (Sand Creek)	10.98				
41 Ponds	7.50				
44		14.69			
52 (Epiphany Creek)			1.98		
54				5.08	
57					12.16
58				18.50	
59			20.22		
60					5.62
Glen Creek					0.40
Lower Coon Creek	5.39				
Pleasure Creek			4.00		
Riverview Creek					1.60
Stoneybrook				0.10	
Tronson Creek				0.60	
Woodcrest Creek					1.30
Facility	2010	2011	2012	2012	2014

Facility	2010	2011	2012	2013	2014
Structures					
Crooked Lake Outlet	Yes	Yes	Yes	Yes	Yes
Lake Andover Outlet	Yes	Yes	Yes	Yes	Yes
Ditch 58 Structures	Yes (5)	Yes (5)	Yes (5)	Yes (5)	Yes (5)
Follow up Inspections					
Northdale Pond Retrofit	Constructed	Χ	Х	Х	Х
Magnolia Pond Retrofit	Constructed	X	Х	Х	Х
Upper Woodcrest Creek Channel Rehabilitation	Constructed	X	Х	Х	Х
Crooked Lake Rain Gardens	Constructed	Х	Х	Х	Х
Columbus Storm Water Ponds		X (3)		X (3)	

# **OPERATIONS & MAINTENANCE**



**Ditch 58-6 Obstruction at Polk Street** 

# 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.

Measures	2010	2011	2011	2012	2013	2014
			Actual			
Bank Stabilization	5	5	0	5	5	5
Beaver	7	10	20	10	10	10
Compliance	25	25	11	25	25	25
Emergency Work	0	1	0	1	1	1
Illicit Discharge	2	3	4	3	3	4
Maintenance	5	5	0	5	5	5
Easement	1	1	0	1	1	1
Erosion	9	9	16	9	9	9
Flooding	5	3	35	3	3	3
Obstruction &	30	30	39	30	30	30
Trees						
Other			8			
Water availability	5	5	0	5	5	5
Water quality	5	5	3	5	5	5
Total Issues	99	102	136	102	102	102

### **Construction**

# **OPERATIONS & MAINTENANCE**



Woodcrest Creek Rehabilitation Inspection off Foley (Installed 2010)

#### Description

This activity involves the creation of new water management 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	2010	2011	2012	2013	2014
Number of	3	0	3	2	2
New Facilities			Xeon Pond Construction		
			Sand Creek Rain Gardens		
Retrofitted Facilities	Northdale Pond Retrofit		Woodcrest Park Pond		
	Magnolia Pond Retrofit				
Bank Stabilization	Woodcrest Creek		Betts Bank Stabilization	Sand Creek	
Projects	Rehabilitation			Erlandson	

#### **Repair**

# **OPERATIONS & MAINTENANCE**



Ditch 58-7-3 at Constance Cleaning 2011

#### 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	2010	2011	2012	2013	2014
Number of	2	7	6	4	5
Projects					
Projects	1. Ditch 39:	1. Ditch 11	1. Ditch 11	1. Ditch 23	1. Ditch 20
	Culvert	2. Ditch 11	2. Ditch 17	2. Ditch 52	2. Ditch 54
	2. Ditch 60:	3. Ditch 44	3. Ditch 41	3. Ditch 59	3. Ditch 58
	Veg	4. Ditch 44-3	4. Ditch 44	4. Pleasure	4. Stonybrook
	Remove	5. Ditch 58-6	5. Timberline	Creek	5. Tronson
		6. Ditch 58-7-1	Spillway		Creek
		7. Ditch 58-7-3	6. Prairie		
			Creek		
			Spillway		

#### **OPERATIONS & MAINTENANCE**

### **Non-Routine Maintenance**



Sand Creek Obstruction at Xeon Street 2011

#### Description

This activity is to ensure the flow of water in a manner that does not create threats to public health, safety, or welfare. Program activities include the following:

Measures	2010	2011	2012	2013	2014
Beaver	10	20	10	10	10
Obstructions	5	39	5	5	5
Trees	40	202	40	40	40
Projects	8	9	9	9	9
Project Names	Timberline spillway Prairie creek spillway	1. D-44 Beaver 2. D-57-2 Andover Blvd 3. D-57 Trees 4. D-58 Beaver 5. D-58-6 Beaver and Trees 6. D-59 Trees 7. D-17 Railroad Obstruction 8. Sand creek Trees 9. Woodcrest Trees			

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# **OPERATIONS & MAINTENANCE**

# **Demonstration Projects**



National Sports Center Pervious Pavement Inspection (Installed 2010)

#### 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	2010	2011	2012	2013	2014
Number of	3	0	3	3	3
Projects					
Project	1) Crooked				
Names	Lake rain				
	gardens				
	2) Coon				
	Rapids High				
	School				
	3) Sand Creek				
	Retrofit				
	Concrete				

# **Implications of Recent Operations and Maintenance Trends for the Management of the Watershed (2011 to 2016)**

Trend	Implications
Decreased Water Availability	Substantial winter runoff and large storm events in spring and summer were offset by several months of severe drought in late summer and fall 2011. Due to these extremes, the annual average appears normal. However, due to the order of events, the system remains low. The increasing scarcity of water is leading to minimum or no flow situations, drops in lake elevations, and the general drying out of wetlands and ponds which serve aesthetic purposes.
Increased bank erosion	As a result of fluctuations between flood and drought conditions, the District is beginning to receive increased reports of bank erosion in the lower portions of the District. If the erosion is not addressed in a timely manner the system will be more vulnerable to large storm events and the erosion will increase current TSS levels.

Expectations about the future Operation and Maintenance of the Watershed					
Expectations	Explanation				
Increased emphasis on water conservation, in channel & in use	If the drought continues, the amount and use of water appropriated both from the creek and its tributaries and the shallow aquifer connected to the creek will become an emphasis for monitoring and enforcement.				
Increased variation in timing or removal of channel obstructions	If and when obstructions are removed may depend on the obstruction's contribution to detaining or retaining the flow of water without damaging the creek bank or structures.				

Immediate Needs (2013 – 2014)					
Need	Explanation				
Prioritize and address bank erosion sites.	As a result of fluctuations between drought and flood conditions, the District is beginning to receive increased reports of bank erosion in the lower portions of the District.				
Evaluate the potential impacts for water conservation and flooding by boarding culverts.	In 2009 the District boarded culverts in four locations in Blaine. The effort appeared to have some success and if performed over a larger area could significantly contribute to recharging surficial groundwater levels.				

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# PLANNING, PROGRAMMING, & BUDGETING

# **PROGRAM DESCRIPTION**

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

The Planning program consists following activities:

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

#### **RETROFIT RECOMMENDATIONS**



Woodcrest Creek Subwatershed Assessment Report January 2011

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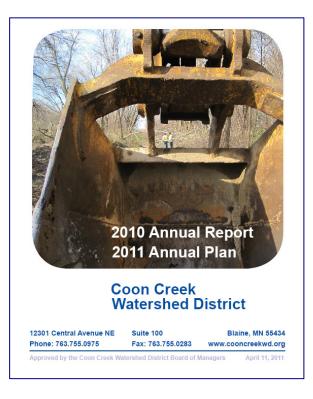
# PLANNING, PROGRAMMING, & BUDGETING Annual Assessment, Reporting, & Planning

#### 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 Comprehensive Plan approved by the BWSR and the District Storm Water Pollution Prevention Plan (SWPPP) approved by the MPCA.

Measures	2009	2010	2011	2012	2013
Annual	Yes	Yes	Yes	Yes	Yes
Report & Plan					
Approved					
MPCA	Yes	Yes	Yes	Yes	Yes
Annual					
Report					
Approved					



# PLANNING, PROGRAMMING, & BUDGETING Budgeting & Program Planning Planning

#### Description

The budget process and resulting budget describes the programs and projects the public will fund in pursuing the District Mission.

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

Measures	2009	2010	2011	2012	2013
Annual Report	3/23/09	4/12/10	3/21/11	3/23/12	3/25/13
Budget Calendar	4/13/09	4/12/10	4/11/11	4/13/12	4/8/13
Review of Financial Status	4/27/09	4/26/10	4/25/11	4/27/12	4/22/13
Review Program Goals &Commitments	4/27/09	4/26/10	4/25/11	4/27/12	4/22/13
Establish Budget Guidelines and Assumptions	6/22/09	6/14/10	6/13/11	6/11/12	6/10/13
District Tour	7/20/09	7/19/10	7/18/11	7/16/12	7/15/13
Project & Program Initiatives	7/27/09	7/26/10	7/25/11	7/23/12	7/22/13
Budget Review and Deliberation	8/10/09	8/9/10	8/8/11	8/13/12	8/12/13
Advisory Ctty Review and Comment	8/11/09	8/10/10	8/9/11	8/14/12	8/13/13
Public Hearing & Budget Adoption	9/14/09	9/13/10	9/12/11	9/10/12	9/9/13
Levy Certification	12/14/09	12/13/10	12/12/11	12/10/12	12/9/13

# PLANNING, PROGRAMMING, & BUDGETING Comprehensive Planning

#### Description

The Comprehensive Plan takes its direction from Minnesota law and the District 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 Comprehensive Plan required under the Watershed Act (103D) and the Metropolitan Water Management Act (103B), and the District Storm Water Pollution Prevention Plan (SWPPP) which serves as the District NPDES permit under the federal Clean Water Act.

Measures	2009	2010	2011	2012	2013
Comprehensive					
Plan Di		D 1 2010			
Comp Plan		Develop 2010- 2020 Comp Plan	Agency Review & approval		
Updates to land uses & cover	Geographic Information System Initiative				
Updates to the hydrology of the watershed	TP-40 Input, Precipitation Analysis	Evapo- transpiration Study	Soil moisture study	Pleasure Creek Springbrook Creek	
Ditches & Watercourses	Electronic Ditch Profiles Ditch 58 Ditch 60	Electronic Ditch Profiles Ditch 39 Ditch 59	Electronic Ditch Profiles Ditch 39 Ditch 41 Lower Coon Creek	Electronic Ditch Profiles Ditch 23 Ditch 52 Ditch 59	Electronic Ditch Profiles Ditch 11 Ditch 17 Ditch 44 Springbrook
Floodplains	XP-SWMM Calibration	Review Coon Rapids Flood Study Review	COE & FEMA Review Coon Rapids Flood Study Review		
Groundwater	Anoka County Groundwater Assessment	Geologic Atlas	Geologic Atlas	Geologic Atlas	Geologic Atlas
Retrofit Study	Sand Creek	Woodcrest Creek	Lower Coon Creek	Pleasure Creek	Springbrook Creek
Stormwater	National Sports Center The Lakes	The Lakes	Anoka- Hennepin School District lands	Anoka-Hennepin School District lands	Anoka-Hennepin School District lands
Subwatershed Plans	The Lakes	Ditch 39 The Lakes	Ditch 41	Lower Coon Creek	Ditch 23
Water Quality	Crooked Lake	The Lakes	Anoka-	Anoka-Hennepin	Anoka-Hennepin

Measures	2009	2010	2011	2012	2013
	The Lakes	National Sports Center Coon Rapids High School	Hennepin School District lands Lower Coon	School District lands Pleasure Creek	School District lands Springbrook
Wetlands	MR 8420 Update & Training	Functional Capacity Study	Creek		
Lakes	Crooked Lake Wrap up The Lakes	The Lakes	Ham Lake		
Wildlife		Tubercled rein- orchid			
Plan Amendments					
Boundary	Lower Rum River WMO, Andover	Lower Rum WMO, Coon Rapids	Six Cities WMO in Blaine, Coon Rapids & Fridley		
Rule	Adoption	Review	Ordered	Amend	
NPDES Permit					
Storm Water Pollution Prevention Plan (SWPPP)		Coordinate SWPPP review and development with Comp Plan revisions	Permit expires 12/31/12, coordinate revisions	Prepare new SWPPP	
Anti-degradation/ Water Quality Plan				Update Anti- degradation plan	
Impaired Waters Study/TMDL		X	X	Х	X
Minimum Impact Design Standards (MIDS)	Participate in workgroup	X	Rule Development	Rule Development	
Tiered Aquatic Life Uses (TALU)	Participate in workgroup	X	Rule Development	Rule Development	
Watershed Approach	Participate in workgroup	X	X	X	X
Watershed Subcommittee - Stormwater Steering Committee	Х	X	X	Х	Х

### Comprehensive Planning

The District reviews and either comments or approves a variety of local water planning efforts: <u>Local Water Plan</u>: Required by the Metropolitan Water Management Act (must be consistent with the Watershed District Comprehensive Plan).

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

<u>Stormwater Pollution Prevention Plan (SWPPP)</u>: Required by the NPDES program under the federal Clean Water Act.

<u>Nondegradation/Water Quality Plan</u>: Required under the NPDES program under the federal Clean Water Act.

City	2009	2010	2011	2012	2013
Number of Local Plans reviewed	8	0	0	7	0
Andover	Stormwater Management Plan Local Water Management Plan	Participate in CCWD Comp Plan Development	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan	
Blaine	Stormwater Management Plan Local Water Management Plan	Participate in CCWD Comp Plan Development	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan	
Columbus	Comprehensive Plan	Participate in CCWD Comp Plan Development	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan	
Coon Rapids	Stormwater Management Plan Local Water Management Plan	Participate in CCWD Comp Plan Development	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan	
Fridley			Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan	
Ham Lake	Local Water Management Plan/SWPPP	Participate in CCWD Comp Plan Development	Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan	
Spring Lake Park			Participate in CCWD Comp Plan Development	Prepare new SWPPP & Local Water Plan	

# Comprehensive Planning Local Water Plan Status

Plan	Andover	Blaine	Columbus	Coon Rapids	Fridley	Ham Lake	Spring Lake Park
Local Water Management	2005	2009	2009	2003	2012	2009	2009
Stormwater Management	2009	2009	2009	2003	2010	2009	2009
SWPPP	2006	2006		2006	2008	2006	2008
Nondegradation Report	2007	2007	Not Required	2007	Not Required	Not Required	Not Required
Wellhead Protection	2007	2008	Not Required No public wells	2007	2011	Not Required No public wells	
Wetland Management				2004			

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# PLANNING, PROGRAMMING, & BUDGETING

#### Description

This activity models the hydrology of surface water flows within the watershed to provide an accurate simulation of District 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	2009	2010	2011	2012	2013
XP-SWMM			Update		
P8		Update			Update
Water Budget	Update/Refine			Update	

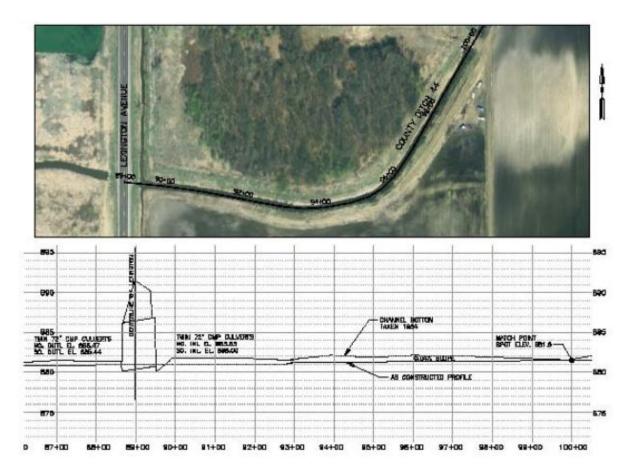
# PLANNING, PROGRAMMING, & BUDGETING Policy and Procedures

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	2009	2010	2011	2012	2013
Policy &	2	2	1	1	1
Procedure					
Manual					
Policies	Records	Operations &	By Laws	Contracting	Accounting
	Retention and	Maintenance			Manual Update
	Disposal	Manual	<b>Operations &amp;</b>	By Laws	
			Maintenance		Contracting
	Enforcement	Guidance for	Manual	Operations &	
	Manual	removal of		Maintenance	By Laws
		obstructions		Manual	
		during periods			
		of low flow			

PLANNING, PROGRAMMING, & BUDGETING Electronic Ditch Profiles



# Description

Electronic media is rapidly becoming the standard of design and planning through GIS and CAD. All of the public ditch data 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 is a 5-year program coordinated with our NPDES inspection requirements.

	2009	2010	2011	2012	2013
Ditch	Ditch 11	Ditch 58	Ditch 39	Ditch 23	Ditch 17
Ditti	Ditch 44	Ditch 60	Ditch 41	Ditch 52	Ditch 20
			Lower Coon	Ditch 59	
			Creek		

Implications of Recent Planning Trends for the Management of the Watershed				
Trend	Implications			
Increasing need to detail budget and work plan	State audit requirements have become more detailed and more stringent requiring increased detail in documenting the District budget, needs and expenditures.			
Increasing complexity in water quality regulations	MPCA is currently involved in at least seven efforts which will have regulatory requirements for the District. These efforts do not include any impairments or subsequent TMDLs which currently exist or may occur in the future.			
Increasing focus on Groundwater	In addition to water quality, many issues appear to have their origin in groundwater.			

Expectations about the	future Planning of the Watershed (2010 to 2012)
Expectations	Explanation
Conflict with MPCA	The current trend and emphasis on water quality does not take into account the impact of the drought nor the effect of the decline in groundwater on surface waters of the District. The District could continue to be held accountable for not achieving water quality standards for turbidity, TSS, and potentially DO when the root of the problem is decreased and declining flows.
Audits could take longer to complete or at least require more staff time in a shorter period	Audit standards appear to change annually which affects the reporting and formatting of District records provided for analysis and reporting.

Immediate Needs (2012 – 2013)		
Need	Explanation	
Complete Hydrologic	Continue to monitor	
Records		

Intermediate Needs (2013 – 2016)		
Need	Explanation	
Complete Hydrologic	Continue to monitor	
Records		

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# PUBLIC AND GOVERNMENTAL RELATIONS

# **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 District 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.



Clean Water Partnership grant – Rain Garden Landowner meeting October 2011

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# PUBLIC & GOVERNMENTAL RELATIONS

# **Education**



Coon Creek WD at Coon Rapids Green Expo April 30, 2011

#### Description

Major needs of the District include greater public awareness of watershed water resources, appropriate use of water resources, and the issues and conflicts that arise when managing those resources. Increasing awareness is the first step in enhancing public commitment to sound natural resource management. The District makes presentations each year to civic & governmental organizations. These presentations focus on water resources, the establishment of the District, its purposes and policies, and issues facing the watershed. The District is used by the community as a credible reference regarding water resources information.

Measures	2009	2010	2011	2012	2013
Number of	13	15	17	16	16
Conferences					
Total public	183	889	3910 (includes online video,	4500	5000
education efforts			slideshow views)		
Number of	15	26	2086	2200	2000
presentations			(online slideshow views)		
Number of	22	34	27	30	35
materials/events					
Education Grants	2	2	3	3	4
	Metro	Sorteberg	Coon Rapids Green Expo		
	Children's	Waterfest			
	Water Fest		Andover High School		
			wetland restoration		
	Blaine Native	Enviroscape	Metro Children's Water		
	Plant Guide	Model			
			Festival- transportation		

# PUBLIC & GOVERNMENTAL RELATIONS

# **Information**



Crooked Lake Area Association Winter Meeting February 22, 2011

#### 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 sense when that participation will be most effective, individuals must first know the issues and the decisions needed to be made.

Means					
Measures	2009	2010	2011	2012	2013
Number of articles	18	25	47	18	15
Number of pre- application conferences	17	21	21	21	24
Number of presentations	15	26	2086 (online slideshow views)	2200	2000
Web Site Visits	28,500	46,400	35,900	45,000	50,000

### Involvement

# PUBLIC & GOVERNMENTAL RELATIONS



Creek Cleanup, MOMS Club of Coon Rapids-North July 2011

#### 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	2009	2010	2011	2012	2013
Average number on	50	50	70	80	80
agenda distribution list					
Completed SWPPP Review meeting	Yes	Yes	Yes	Yes	Yes
Number of CAMP participants	1	0	1	0	1
Number of Planning Workshops/Reviews	10	10	2	5	10
Coon Creek Clean-up	Yes	Yes	Yes	Yes	Yes
Number of Hearings	3	4	3	3	3
Number of issues on Hot Line	79	82	132	135	140
Number of contacts with Lake Assn	15	12	34	24	18
Number of open mike presentations	1	0	1	0	0
Number of Board Meeting per year	21	22	20	18	18

#### **Advisory Committee**

M.S. 103D.331 requires that the District have an advisory committee to advise and assist the Board on all matters affecting the interests of the watershed district and make recommendations on all contemplated projects and improvements in the watershed district. New Policy was developed in 2011 and applications were received with final Board decision in January 2012.

Organization	2009	2010	2011	2012	2013
Anoka Conservation	Jim Lindahl	Jim Lindahl	Jim	Jim Lindahl	Jim Lindahl
District			Lindahl		or successor
Anoka County	Robyn West	Robyn West	Carol	Carol	Carol
			LeDoux	LeDoux	LeDoux
					or successor
Sporting/Environ	Vacant	Vacant	Open	Gary	Gary
Organization				Nereson-	Nereson-
				CLAA	CLAA
Farm Organization	Vacant	Vacant	Open	Open	Open
Andover	Vacant	Vacant	Open	Diana Perron	Diana Perron
Blaine	Vacant	Vacant	Open	Michael Von	Michael Von
			-	Wald	Wald
Columbus	Vacant	Vacant	Open	Open	Open
Coon Rapids	Vacant	Vacant	Open	Roger	Roger
*			-	Johnson,	Johnson,
				Bill Kurdziel,	Bill Kurdziel,
				Jeff Simon	Jeff Simon
Fridley				Donna Bahls	Donna Bahls
Ham Lake	Vacant	Vacant	Open	Open	Open
Spring Lake Park				Open	Open

#### Involvement

# Technical Advisory Committee



Minnesota Statute 103D.337 requires that the District establish a technical advisory committee consisting of representatives of affected cities, county, and soil and water conservation districts.

Organization	2009	2010	2011	2012	2013
Number of Technical	2	6	1	6	4
Advisory Committee					
meetings					
Anoka Conservation	Chris Lord	Chris Lord	Chris Lord	Chris Lord	Chris Lord
District					
Andover	Todd Haas	Todd Haas	Todd Haas	Todd Haas	Todd Haas
Blaine	Jim Hafner	Jim Hafner	Jim Hafner	Jim Hafner	Jim Hafner
Columbus	Elizabeth	Elizabeth	Elizabeth	Elizabeth	Elizabeth
	Mursko	Mursko	Mursko	Mursko	Mursko
Coon Rapids	Doug Vierzba	Doug Vierzba	Doug	Doug Vierzba	Doug Vierzba
			Vierzba		successor
Fridley				Jim	Jim
				Kosluchar	Kosluchar
Ham Lake	Tom Collins	Tom Collins	<b>Tom Collins</b>	Tom Collins	Tom Collins
Spring Lake Park				Phil Gravel,	Phil Gravel,
				Stantec	Stantec

# Involvement

# Technical Evaluation Panel



Minnesota Statute 103G.2242 Subdivision 2 requires the District establish a Technical Evaluation Panel to assist or make determination on questions concerning the public value, location, size, or type of a wetland.

Organization	2009	2010	2011	2012	2013
Number of Technical	34	34	24	24	24
<b>Evaluation Panel</b>					
meetings					
Anoka Conservation	Dennis	Dennis	Dennis	Dennis	Dennis
District	Rodacker	Rodacker	Rodacker	Rodacker	Rodacker
BWSR	Lynda	Lynda	Lynda Peterson	Lynda	Lynda
	Peterson	Peterson		Peterson	Peterson
US Army Corps of	Tim Fell	Tim Fell	Tim Fell	Andy	Andy
Engineers			retires, Marie	Beaudet	Beaudet
			Kopka fills in		
Andover	Todd Haas	Todd Haas	Todd Haas	Todd Haas	Todd Haas
Blaine	Jim Hafner	Jim Hafner	Jim Hafner	Jim Hafner	Jim Hafner
Columbus					
Coon Rapids	Dave Full	Dave Full	Dave Full	Dave Full	Dave Full
				retires	successor
Fridley					
Ham Lake	Tom Collins	Tom Collins	Tom Collins	Tom Collins	Tom Collins
Spring Lake Park					

# **Implications of Public & Governmental Relations Trends for the Management of the Watershed (2011 - 2016)**

Trend	Implications
Emphasis on measurement	With the new NPDES permit, focus will be on implementation of
of public involvement in	SWPPP goals. Measurement of public engagement will be expected,
reducing:	though methodology guidance is, at best, limited. More staff time may
1. water quality pollution	be spent on researching survey techniques, started in 2010, and
2. water quantity issues	continues for alternative, cost-effective methodologies.
Increasing reliance on the	Interactive Web tools such as webmapping, webinars, and multimedia
internet as a District	products are being used for training, public engagement, and education.
information outlet and	Additional staff time producing quality graphics will require either more
source for public interaction	staff training or additional graphics help.

# **Expectations about the future for Public & Governmental Relations in the watershed**

Expectations	Explanation						
Increased civic engagement	The NPDES permit is prompting much more civic engagement activity by the MPCA and US EPA which are using blogs and other social media. Yet, more face-to-face time seems also to be expected by local governments with the public.						
Mobile literacy	Mobile phones are increasingly used for information gathering. Videos could be used for in-the-field or real-time trainings or reference via mobile smartphones. One example: construction BMP installation or maintenance-such as proper erosion control.						

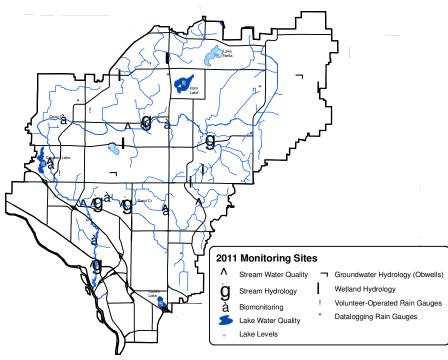
# Immediate Needs (2013 – 2014)

Need	Explanation
Increase our internal library	With the popularity increasing for short videos for broadcast on Web,
of diagrams, illustrations,	local community access television, and at outreach events, there's more
and animations	opportunity also available for illustrating complex concepts, issues, and
demonstrating technical	their application in District activities.
aspects of water resource	
issues for non-professionals.	
Continued awareness of and	The roles of various media change rapidly; staying in tune with best
training in communications	vehicles for targeted message delivery will continue to be a part of the
trends such as social media.	PGR landscape.

Intermediate Needs (2014 – 2017)								
Need	Explanation							
Develop PGR methodologies to assess public knowledge, awareness, attitudes within CCWD.	With the new NPDES permit, focus will be on measurement of changed behaviors, especially via public engagement. Defining target behaviors and audiences will be the first steps in this process.							

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# **RESEARCH, MONITORING, & DATA COLLECTION**



# **PROGRAM DESCRIPTION**

The purpose of the research, monitoring and data collection program is to gather and analyze data that will result in increased efficiency and effectiveness of watershed management and District programs. Most of the data that is presented in this section of the annual report and plan is drawn from "2010 Anoka Water Almanac: Water Quality and Quantity Conditions in Anoka County, MN," prepared by the Anoka Conservation District.

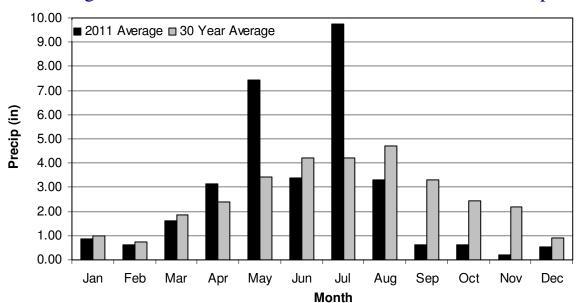
The research, monitoring, and data collection program provides integrated resource information used in planning, evaluating, and decision-making within the Coon Creek Watershed District. Program activities include:

- 1. Precipitation Monitoring
- 2. Stream
  - a. Hydrology
  - b. Water quality
  - c. Biology
- 3. Lakes
  - a. Hydrology
  - b. Water quality
- 4. Wetlands
  - a. Hydrology
  - b. Biology/Vegetation

District planning, regulation, and project decision-making depend 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.

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# Precipitation



#### Description

Monitoring

This activity involves 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.

Location or Volunteer	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total
Tipping bucket, datalogging rain gauges (Time and date of each 0.01" is recorded)								Ť						
Andover City Hall	Andover			1.51	3.73	8,36	3.92	12.10	3.37	0.52	0.93			
Blaine Public Works	Blaine				3.33		2.72	9.39	3.30	0.69	0.63			
Coon Rapids City Hall	Coon Rapids			1.36	3.85		4.48	10.79	3.70	0.61	0.23			
Anoka Cons. District office	Ham Lake			1.23	3.59	7.35	1.69		3.19	0.89	0.45			
Hoffman Sod Farm	Ham Lake			1.70	3.52		4.18	9.57	2.94	0.61	0.66			
Northern Nat. Gas substation	Ham Lake			1.58	0.36	5.84	2.41	8.60	3.18	0.45	0.59			
Cylinder rain gauges (read daily)														
N. Myhre	Andover	0.85	0.61	2.28	2.87	8.68	4.01	9.79	3.20	0.69	0.79	0.19	0.55	34,51
S. Scherger	Coon Rapids				3.07	8.52								
S. Solie	Coon Rapids				3.82	5,76	3,67	7.95	3.43	0.55				
2011 Average	County-wide	0.85	0.61	1.61	3.13	7.42	3.39	9.74	3.29	0.63	0.61	0.19	0.55	32.01
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

#### **Coon Creek Watershed 2011 Precipitation**

Precipitation as snow is given in melted equivalents

Measures	2010	2011	2012	2013	2014
Number of Data Logging Gages	6	6	6	6	6
Andover City Hall, Andover	*	*	*	*	*
Anoka Conservation District, Ham Lake	*	*	*	*	*
Blaine Public Works, Blaine	*	*	*	*	*
Coon Rapids City Hall, Coon Rapids	*	*	*	*	*
Hoffman Sod Farm, Ham Lake	*	*	*	*	*
Northern Natural Gas Substation, Ham Lake	*	*	*	*	*
Costs					
Monitoring Unit	\$575.00	\$545.00	\$555.90	\$567.02	
Monitoring Budget	\$3,450.00	\$3,270.00	\$3,335.40	\$3,402.11	
Unit Costs Chng – Prev Yr	9.5%	-5.2%	2%	2%	
Analysis Budget	\$850.00	\$850.00	\$867.00	\$884.34	
Analytical Cost chng – Prev Yr	0%	0%	2%	2%	

## Description

This activity involves monitoring observation wells installed by the Department of Natural Resources and maintained by the Anoka Conservation District. With increasing concern and awareness of declines in the surficial water table it is important that changes and trends in the surficial aquifer be reported at least annually.

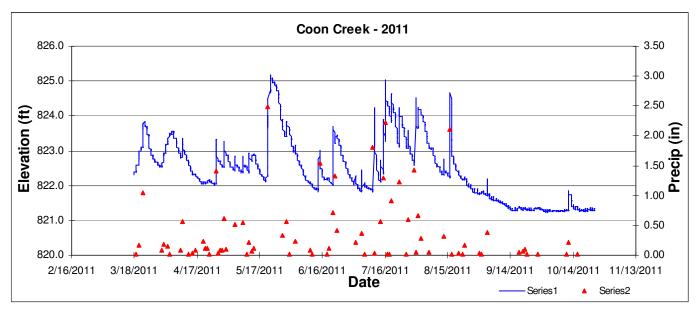
Measures in feet below ground level	Well Number	2009	2010	2011	5 Year Avg.	10 Year Avg.	43 Year Avg.
Upper Watershed					-8.5	-8.8	-9.1
East Bethel	2025	-7.2	-7.5	-7.6			
Carlos Avery	2026	-20.4	-18.3	-15.8			
Lower Watershed							
Coon Rapids	2016	-32.5	-34.5	-33.7			
Soderville	2023	-12.5	-	-	-10.2		-9.8

# **Coon Creek Hydrology**

Percentiles	2005	2006	2007	2008	2009	2010	2011	All Years Thru 2011
Min	820.04	820.26	820.33	820.43	820.03	820.54	821.23	820.03
2.5%	820.06	820.42	820.40	820.52	820.12	820.64	821.27	820.18
10.0%	820.19	820.53	820.53	820.57	820.20	820.73	821.31	820.46
25.0%	820.57	820.78	820.73	820.63	820.35	820.85	821.83	820.69
Median								
(50%)	820.91	821.35	821.25	820.88	820.61	821.05	822.38	821.12
75.0%	821.26	821.78	821.88	821.78	820.93	821.32	822.99	821.12
90.0%	821.77	822.27	822.63	822.26	821.31	821.68	823.70	822.55
97.5%	822.92	822.76	823.21	822.79	822.05	822.33	824.56	823.41
Max	823.26	824.18	824.47	823.96	824.11	823.62	825.18	825.18

#### **Summary of All Monitored Years**

calculated based on every reading, not daily summaries, as they would "iron out" big jumps associated with intense storms. "All Years" is not an average of each year's summary statistic. Rather, it is calculated from the continuous, multi-year record.

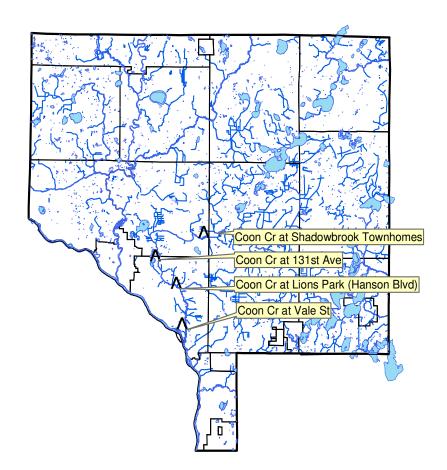


#### 2011 Hydrograph

## 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 are use in computer models for developing management strategies.

Monitoring Sites	2009	2010	2011	2012	2013
Coon Creek					
Coon Creek at					
Vale, Coon	Х	Х	Х	Х	Х
Rapids					
Coon Creek at					
Vale, Coon					
Rapids Rating		Х			
Curve					
Deer Creek					
Ditch 59-4 at					
Andover Blvd,	Х	Х	Х	Х	Х
Ham Lake	Α	$\Lambda$	Δ	Λ	$\Lambda$
Prairie					
Creek					
Ditch 58 at					
Bunker Lake	Х	Х	X	Х	Х
Blvd					
Sand Creek					
Sand Creek at					
Ditch 39 Confluence,		Х	Х	Х	Х
Coon Rapids		Λ	Λ	Λ	Λ
Cooli Rapids					
Sand Creek at					
Xeon St, Coon	Х	Х	Х	Х	Х
Rapids	21	2		A	7
Pleasure				Х	Х
Creek					
Springbrook				Х	Х
Creek				Δ	Δ
Numb of Sites	4	5	5	7	7
Unit Cost	\$ 525.00	\$ 535.00	\$ 545.00	\$ 555.90	\$ 567.02
Budget Cost	\$ 2,100.00	\$ 2,675.00	\$ 2,725.00	\$ 3,891.30	\$ 3,969.13
Change in					
Unit Costs	0%	1.9%	1.9%	2.0%	2.0%
Change in	<b>~</b> ~	<b>27</b> ~		10.07	• • ~
Total Costs	0%	27.4%	1.9%	42.8%	2.0%

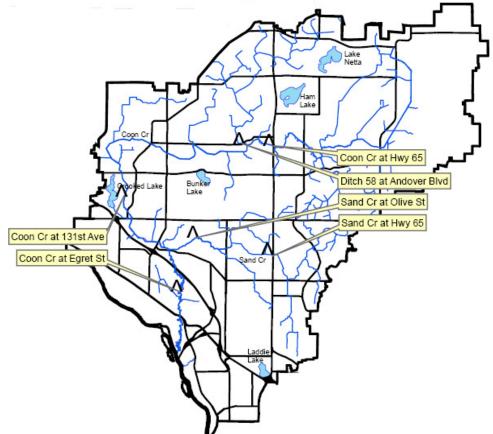


# Description

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

Coon Creek	Standard	2008	2009	2010	2011
TP (mg/L)	.130	0.134	0.107	0.136	0.169
TSS (mg/L)	>13.7	34	73	20	22.5
CL (mg/L)	<u>≥</u> 230	58.8	64.1	47.8	47.1
Turbidity	>25	36	66	26.3	26.3
(FRNU)					

Locations	2010	2011	2012	2013	2014
Coon Creek					
Shadowbrook	X	X	X	X	X
Townhomes,					
Andover					
131 <sup>ST</sup> Ave,	X	X	X	X	X
Andover					
Lions Park,	Х	Х	Х	X	X
Coon Rapids					
Vale St., Coon	Х	Х	X	Х	Х
Rapids					
Springbrook					
Creek					
River Road		X	X	X	X
Sand Creek					
Radisson Rd	Х	Х	X	Х	Χ
(41-4), Blaine					
Highway 65,	Х	Х	Χ	Х	Χ
Blaine					
Happy Acres					
Park, Blaine					
Ditch 39,	Х	X	Х	Х	X
Blaine					
Xeon Street,	X	X	Х	X	Χ
Coon Rapids					
Pleasure					
Creek					
86 <sup>th</sup> Ave.		Χ	X	X	Χ
Ditch 39					
University			Х	Х	X
Ave, Coon					
Rapids					
Ditch 60					
Happy Acres				X	
Park, Blaine					
Total	8	10	11	12	
Number					
Unit Cost	\$ 990.00	\$ 1,345.00	\$ 1,371.90	\$ 1,399.34	
Budget Cost	\$ 7,920.00	\$ 13,450.00	\$ 15,090.90	\$ 16,792.06	
Change in Unit	4.8%	35.9%	2.0%	2.0%	
Costs					
Change in	4.8%	69.8%	12.2%	11.3%	
Total Costs					



**Coon Creek Watershed Professional Biomonitoring Sites** 

#### Description

In 2011 the District monitored six locations within the watershed. The effort coordinated by the Anoka Conservation District, assessed stream health using benthic (bottom-dwelling) macroinvertebrates. Certain macroinvertebrates, such as mayflies, stoneflies, and caddisflies, require high quality streams while others 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 taken from two sites in August 2000. Both of these reaches are actively maintained ditches that had been recently cleaned. 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
- verify the MPCA findings.

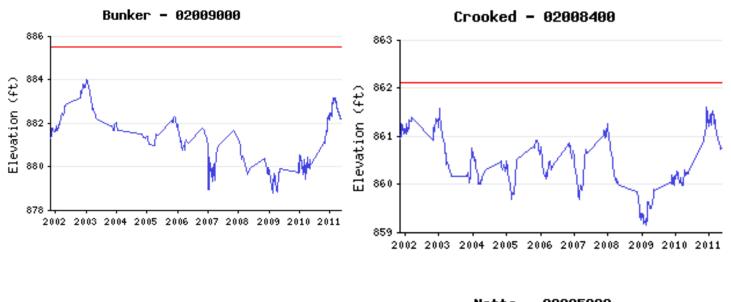
## Summary

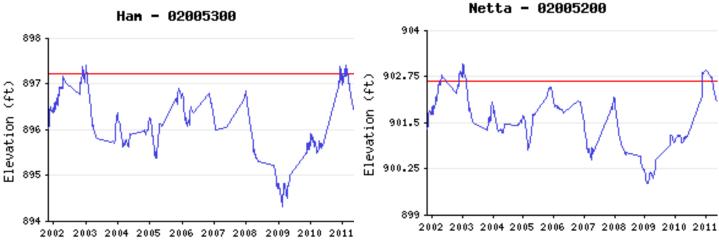
The data used in this study are limited in several ways and therefore the results should be interpreted with caution. Limitations include a relatively small number of sampling sites, changes in sampling sites across years, and the statistical non-independence of different sampling sites located within the same stream or ditch. However, data from 2008-2011 support of the following general conclusions:

- Sites that have not been cleaned with a backhoe or similar equipment (unmaintained sites) have higher habitat MPCA Stream Habitat Assessment (MSHA) scores in all categories, including land use, substrate, and channel morphology scores, and lower turbidity values. All of these observations are consistent with better stream habitat for macroinvertebrates at unmaintained sites, but the differences were not dramatic.
- Turbidity and TSS, common stressors of invertebrate communities, were similar at maintained and unmaintained sites. The dataset for this analysis was small, including only measurements taken immediately prior to professional biomonitoring, and therefore this is not a robust analysis.
- Family Biotic Index (FBI) was correlated with overall MSHA score. A more sensitive invertebrate community (lower FBI) occurs where there is better habitat (higher MSHA scores). The number of families and number of EPT families was not correlated with MSHA score, presumably because a high number of families can be dominated by insensitive, generalist families.
- Total number of families, FBI, and EPT indices of stream health did not differ among unmaintained reaches of stream and those that have been maintained (ditched or cleaned) in the last 10 years. It is likely that ditch maintenance is indeed a stressor, but other stressors also exist and affect all sites, such that invertebrate communities are stressed in both maintained and unmaintained channels.
- There does not appear to be correlations between TSS and any of the invertebrate indices, suggesting that TSS is not a strong predictor of these invertebrate indices within the Coon Creek watershed. However, our TSS dataset is small, including only 8 samples taken during invertebrate sampling. Confidence in the conclusion is therefore weak.
- Invertebrate indices for Coon Creek sites are distributed widely over the spectrum observed in other streams locally, and the sites designated by the MPCA as "impaired" are at or better than the county average.
- Sites designated as having an impaired invertebrate community were re-examined with new data collected since 2000. Coon Creek at Highway 65 is likely a borderline case of impairment. For Coon Creek at Egret Street recent indices are better than those from 2000. New data in 2010 from additional Coon Creek sites suggests that other sites are impaired, but not all.

Overall, impairment of the invertebrate community is variable throughout the Coon Creek system. Impairment designations for portions of the creek are appropriate, but possibly not for the entire system. Moreover, there is more than one stressor on the invertebrate community. While ditch maintenance seems like a likely culprit in actively maintained ditches, it appears that other stressors are also present and affect both maintained ditches and other stream segments, such as water quality or flow.

Locations	Status	2010	2011	2012	2013	2014
Coon Creek						
$131^{\text{ST}}$ St,						
Andover	Maint	MPCA	X	Х	Х	Х
TH 65, Ham						
Lake	Maint	MPCA	X	X	Х	Х
Egret Blvd, Coon					•	
Rapids	Unmaint	Х	X	Х	Х	Х
Sand Creek						
(D-41) at Olive,						
Blaine	Unmaint	MPCA	X	Х	Х	Х
D-41) at Ulysses,						
Blaine	Maint	Х	Х	Х	Х	Х
Ditch 59-4						
At Bunker, Ham Lake	Maint; Last					
Lake	monitored 2008					
Ditch 58						
At 165th, Ham						
Lake	Unmaint					
At Andover Bld,						
Ham Lake	Unmaint	MPCA	X	X	Х	Х
Total Number		2	6	6	6	6
Unit Cost		\$ 1,275.00	\$ 1,275.00	\$ 1,300.50	\$ 1,326.51	\$1353.04
Budget Cost		\$ 2,550.00	\$ 7,650.00	\$ 7,803.00	\$ 7,959.06	\$8118.24
Change in Unit Costs		2.0%	0.0%	2.0%	2.0%	2.0%
Change in Total		-49.0%	300.0%	2.0%	2.0%	2.0%
Costs						



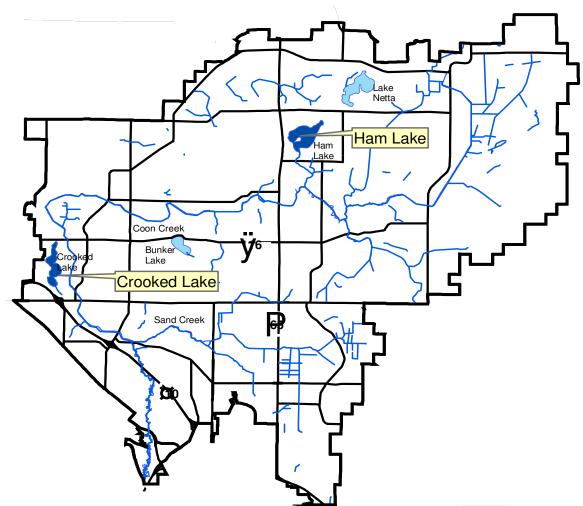


#### Description

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.state.mn.us\lakefind\index.html. Note that as of December 14, 2011, Laddie Lake is within our expanded boundary formerly in the Six Cities Watershed Management Organization.

Lake	Measure	2007	2008	2009	2010	2011
	Max	881.8	881.7	880.4	880.5	883.2
Bunker	Average	880.4	880.4	879.0	880.0	882.7
	Min	879.0	879.6	878.8	879.4	882.2
	Max	861.2	861.2	859.9	860.3	861.6
Crooked	Average	860.4	860.8	859.5	860.1	861.2
	Min	860.0	860.0	859.1	860.0	860.7
	Max	896.8	896.8	895.2	895.9	897.4
Ham	Average	896.5	895.5	894.8	895.7	896.9
	Min	896.0	895.3	894.3	892.4	896.4
	Max	901.6	902.1	900.1	899.9	902.6
Laddie	Average	901.0	901.3	899.6	899.6	901.6
	Min	900.3	900.5	899.0	899.3	900.6
	Max	902.1	902.2	900.6	901.2	902.9
Netta	Average	901.2	901.3	900.2	901.1	902.5
	Min	900.5	900.6	899.8	900.9	902.1

Lake	2009	2010	2011	2012	2013
Bunker	X	Х			
Crooked	X	Х	Х	X	Х
Ham	X	Х	Х	X	Х
Laddie				X	Х
Netta	Χ	Х	Х	Χ	X
Total Number	4	4	3	4	4
Unit Cost	\$ 120.00	\$ 150.00	\$ 160.00	\$ 163.20	\$ 166.46
Budget Cost	\$ 480.00	\$ 600.00	\$ 480.00	\$ 652.80	\$ 665.86
Change in Unit	9%	25.0%	6.7%	2.0%	2.0%
Costs					
Change in Total	9%	25.0%	-20.0%	36.0%	2.0%
Costs					



### 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 in the 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.

## Ham Lake Summertime Historic Mean

Agency	MC	MC	MC	MC	MC	ACD									
Year	84	93	94	96	97	98	2000	2001	2002	2004	2005	2007	2008	2010	2011
TP	34.0	19.0	36.0	16.0	23.0	24.0	32.6	39.1	29.1	45.2	45.0	24.0	20.5	27.0	26.0
Cl-a	11.8	6.2	9.1	8.3	5.9	11.3	13.1	12.7	11.5	6.3	8.4	11.4	6.0	6.7	6.2
Secchi															
(m)	1.84	2.76	2.35	2.27	3.14	2.35	2.04	1.81	2.1	2.5	2.2	2.3	2.7	2.7	2.5
Secchi															
(ft)	6.0	9.1	7.7	7.4	10.3	7.7	6.7	5.9	6.7	8.2	7.4	7.7	9.0	8.9	8.3

### **Carlson's Tropic State**

Indices

TSIP	55	47	56	44	49	50	54	57	53	59	59	50	48	52	51
TSIC	55	49	52	51	48	54	56	56	55	49	52	55	48	49	49
TSIS	51	45	48	48	43	48	50	51	50	47	49	48	45	46	47
TSI	54	47	52	48	47	51	53	55	52	52	53	51	47	49	49

# Ham Lake Water

	Report	i Caru													
Year	84	93	94	96	97	98	2000	2001	2002	2004	2005	2007	2008	2010	2011
ТР	С	Α	С	Α	Α	В	С	С	В	С	С	В	Α	В	В
Cl-a	В	Α	Α	Α	Α	В	В	В	В	Α	Α	В	Α	Α	Α
Secchi	С	В	В	В	Α	В	С	С	С	В	В	В	В	В	В
Overall	С	Α	В	Α	Α	В	С	С	В	В	В	В	Α	В	В

#### **Crooked Lake Historical Summertime Mean Values**

Agency	MC	MC	MC	MC	MC	CAMP	ACD							
Year	1994	1995	1996	1997	1998	1999	2000	2002	2003	2005	2006	2008	2009	2011
TP	30.0	34.0	30.0	30.0	30.0		26.7	31.1	30.9	31.0	38.0	26.4	36.0	27.0
Cl-a	13.0	10.7	9.8	10.6	16.7		12.5	14.0	10.2	11.6	8.0	8.5	8.0	5.2
Secchi														
(m)	1.4	1.5	1.3	1.4	1.6	1.9	1.2	2.2	1.7	1.9	1.9	2.2	2.4	2.9
Secchi														
(ft)	3.2	4.8	4.1	4.6	5.4	6.2	4.0	7.1	5.5	6.3	6.3	7.1	7.8	9.5

#### **Carlson's Tropic State**

#### Indices

TSIP	53	55	53	53	53		52	54	54	54	57	51	56	52
TSIC	56	54	53	54	58		56	57	53	55	51	52	51	47
TSIS	56	55	57	55	53	51	57	49	52	51	51	49	47	45
TSI	55	55	54	54	55		55	53	53	53	53	51	51	48

#### **Crooked Lake Water Quality**

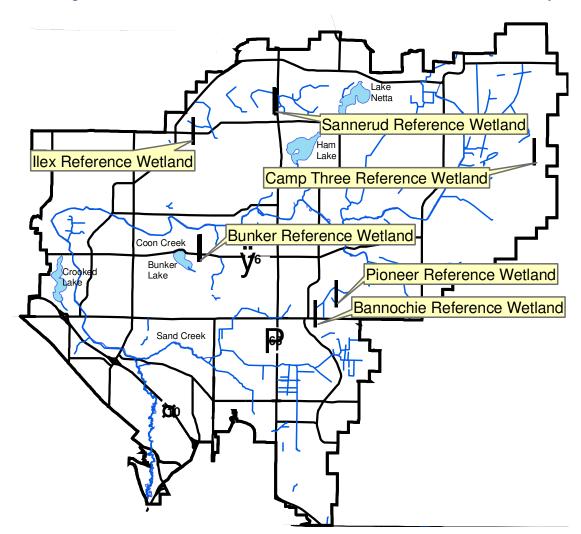
#### **Report Card**

Year	94	95	96	97	98	99	2000	2002	2003	2005	2006	2008	2009	2011
ТР	В	С	В	В	В		В	В	В	В	С	В	С	В
Cl-a	В	В	А	В	В		В	В	В	В	А	А	А	Α
Secchi	С	С	С	С	С	С	С	С	С	С	С	B-	В	В
Overall	В	С	В	В	В		В	В	В	В	В-	В	В	В

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	2009	2010	2011	2012	2013
Crooked	Х		Х	Х	
Ham		Х	Х		Х
Laddie				Х	Х
Netta	Х	Х		Х	Х
<b>Total Number</b>	2	2	2	3	3
Unit Cost	\$ 985.00	\$ 1,025.00	\$ 1,075.00	\$ 1,096.50	\$ 1,118.43
Budget Cost	\$ 1,970.00	\$ 2,050.00	\$ 2,150.00	\$ 3,289.50	\$ 3,355.29
Change in Unit	7%	4.1%	4.9%	2.0%	2.0%
Costs					
Change in	7%	4.1%	4.9%	53.0%	2.0%
Total Costs					

Lake monitoring has followed the following schedule:



### Description

This program is 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 is done. District-wide, the ACD maintains a network of six wetland hydrology monitoring stations.

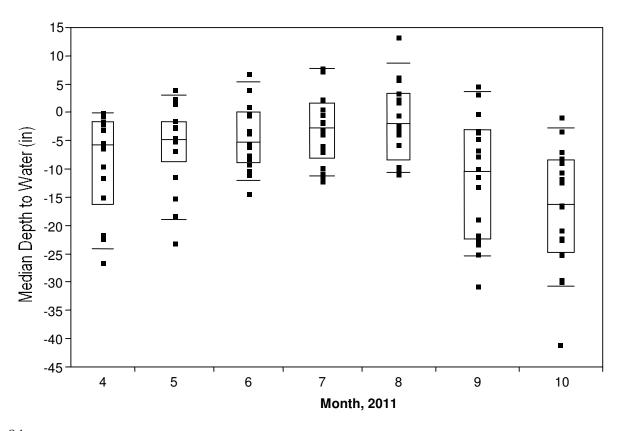
The purpose of reference wetland data is to help assure that wetlands are accurately identified by regulatory personnel. State and federal laws place restrictions on filling, excavation and other activities in wetlands. Commonly, citizens wish to do work in an area that is sometimes, or perhaps only 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). 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 below are based upon percentiles of the water levels experienced at known wetland boundaries. The quartile boxes in the figures delineate the 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> 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 subsurface 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 18 reference wetlands (except during winter) and the raw water level data available through the Data Access tool at: www.AnokaNaturalResources.com.



Wetland	2009	2010	2011	2012	2013	
Hydrology	Iydrology					
Andover	Х	X	Х	Х	Х	
Bunker	Х	Х	Χ	Х	Х	
Bannochie	Х	Х	Χ	Х	Х	
Camp Three	Х	Х	Χ	Х	Х	
Pioneer Park	Х	Х	Χ	Х	Х	
Sannerud	Х	X	Х	Х	Х	
<b>Total Number</b>	6	6	6	6	6	
Unit Cost	\$ 525.00	\$ 535.00	\$ 545.00	\$ 555.90	\$ 567.02	
Budget Cost	\$ 3,150.00	\$ 3,210.00	\$ 3,270.00	\$ 3,335.40	\$ 3,402.11	
Analysis	\$ 300.00	\$ 315.00	\$ 325.00	\$ 331.50	\$ 338.13	
Change in Unit	0%	1.9%	1.9%	2.0%	2.0%	
Costs						
Change in	0%	1.9%	1.9%	2.0%	2.0%	
Total Costs						

Wetland Veg	2009	2010	2011	2012	2013
Transects					
Andover					
Bunker		Х	X		
Bannochie					
Camp Three					
Pioneer Park					
Sannerud		Х	X		
<b>Total Number</b>	0	2	2	2	2
Unit Cost	\$ 360.00	\$ 370.00	\$ 380.00	\$ 387.60	\$ 395.35
Budget Cost	\$ -	\$ 740.00	\$ 760.00	\$ 775.20	\$ 790.70
Change in Unit	3.0%	6.0%	2.7%	2.0%	2.0%
Costs					
Change in			2.7%	2.0%	2.0%
Total Costs					

Implications of Recent N	Monitoring Trends for the Management of the Watershed
Trend	Implications
Decreases in precipitation	Decrease in flows and water quality, increased exceedance of state water quality standards.
Increased frequency of rain	Decreased infiltration
events greater than 1 inch	Undersized infrastructure
	Increased loadings of Phosphorus and Total Suspended Solids (TSS).
Decreases in Lake Levels	Increases in phosphorus levels and algae.
Increase in flashiness of	Increases in turbidity and TSS in lower creek. General decrease in water
lower portions of system	quality.
Decreases in water quality in	Increased need for retrofit projects.
older developed portions of	
watershed	

Expectations about the	e future Monitoring of the Watershed (2012 to 2014)
Expectations	Explanation
Continued decreases in precipitation	Decreases in precipitation will contribute to water scarcity and water shortages throughout the District.
Continued high intensity, short duration storms	Downbursts over smaller areas flush areas with enough water to suspend sediment, contribute to turbid condition and create peak flows which can have an erosive impact on stream channels.
Increased "Impaired" Designations	The District historical focus has been on flood control requiring that the lower portion of the watershed discharge prior to the peak flow arrival from upstream. This strategy in turn has created a "flash flush" which is contributing to (or causing) loading of both dissolved pollutants such as Chloride, but is contributing to high turbidity levels and TSS as well.

Immediate Needs (2013	- 2015)
Need	Explanation
Focus on retrofit efforts in	The District has completed one "retrofit" study through the Anoka
the lower portion of the	Conservation District (Sand Creek). In 2010-11 the District assessed the
watershed to reduce volume,	lower part of the Coon Creek Watershed (Coon Rapids). This effort
Phosphorus loading, and	needs to continue with other tributaries until the issues of volume,
TSS	turbidity, phosphorus loading, and TSS in the lower Creek are
	addressed.
Encourage water	Two efforts should be considered:
conservation and infiltration	1) Public education to conserve beyond watering restrictions (eg,
throughout the District	aeration to encourage infiltration).
	2) Use of 'Culvert Boarding' on high infiltration (losing reaches) of the
	public ditch system throughout the watershed.