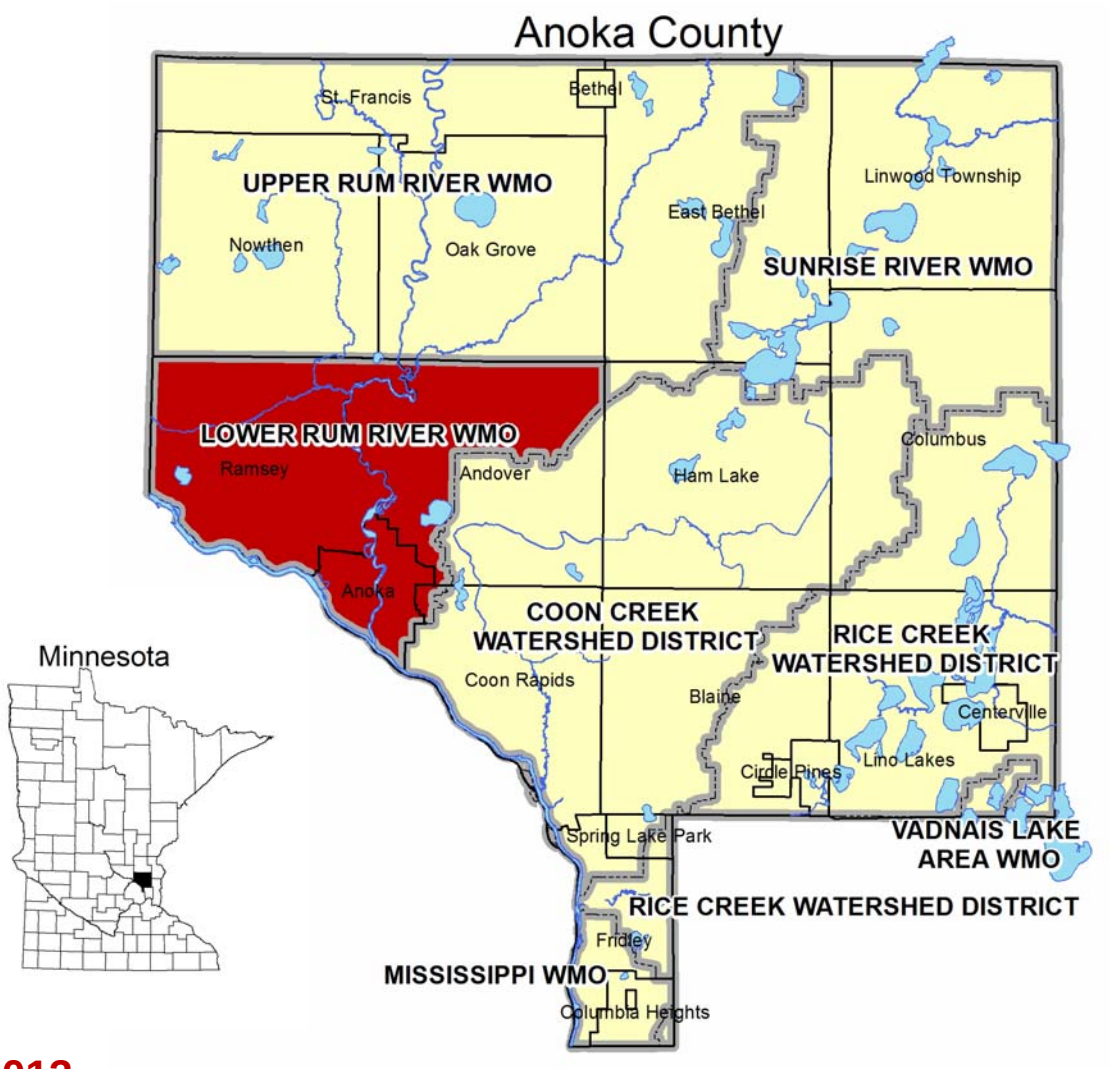
2012 Annual Report

Lower Rum River

Watershed Management Organization

Andover – Anoka – Coon Rapids – Ramsey



May 22, 2013

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Lower Rum River Watershed Management Organization
2015 First Avenue
Anoka, MN 55303

I. Introduction

This report has been prepared to meet the annual watershed management organization reporting requirements of Minnesota Rules 8410.0150. The report is intended to fulfill 2012 reporting requirements.

The Lower Rum River Watershed Management Organization (LRRWMO) is a joint powers organization under Minnesota Statutes, Section 471.59. It is comprised of the cities of Anoka and Ramsey, and portions of the cities of Andover and Coon Rapids. Board members are appointed by the member cities. The organization's direction is laid out in its watershed management plan and the member municipalities' local water plans. The LRRWMO meets every month on the third Thursday at 8:30 am at the Anoka City Hall.

Rum River at the Anoka Dam

II. Activity Report

a. Current Board Members

CITY OF ANDOVER

Todd Haas (Chair)
1685 Crosstown Blvd NW
Andover, MN 55034
763.755.5100
t.haas@andovermn.gov

Bruce Perry (Alternate)
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Anoka, MN 55304
763.427.4485
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CITY OF ANOKA

Carl Anderson (Treasurer)
2015 1st Ave N
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763.576.2781
carl.anderson.eng@comcast.net

Jeff Weaver (Alternate)
2015 1st Ave N
Anoka, MN 55303
763.421.5522
angler55303@yahoo.com

CITY OF COON RAPIDS

Ron Manning
11155 Robinson Dr
Coon Rapids, MN 55433
763.767.6493
rmanning@coonrapidsmn.gov

Bruce Sanders (Alternate)
11155 Robinson Dr
Coon Rapids, MN 55433
763.767.6493
bsanders@coonrapidsmn.gov

CITY OF RAMSEY

Mark Kuzma (Vice Chair)
7550 Sunwood Dr NW
Ramsey, MN 55303
763.576.4366
mkuzma@ci.ramsey.mn.us

Randy Backous (Alternate)
7550 Sunwood Dr NW
Ramsey, MN 55303
763.576.4364
rbackous@ci.ramsey.mn.us

Lake Itasca, City of Ramsey

b. Employees and Consultants

The LRRWMO does not employ staff, but does utilize consulting services. A description of contracted services is listed below:

Consultant/Partner	Contact	Work Description
Anoka Conservation District	Jamie Schurbon Water Resource Specialist 1318 McKay Dr NW, #300 Ham Lake, MN 55304 763-434-2030 ext. 12 jamie.schurbon@anokaswcd.org	• Water quality and hydrological monitoring, and special studies. • Website maintenance. • Administer the WMO's cost share grant program. • Public outreach. • Assistance preparing annual reports to BWSR. • Assistance reviewing local water plans.
Barr Engineering	Bob Obermeyer Senior Water Resources Engineer 4700 West 77th St Minneapolis, MN 55435-4803 952-832-2857 bobermeyer@barr.com	• Permit reviews. • Technical and engineering guidance.
City of Anoka Finance Department	Lori Yager, Finance Director 2015 First Ave North Anoka, MN 55303-2270 763-576-2771 lyager@ci.anoka.mn.us	• Deputy Treasurer.
Kennedy & Graven	Charlie LeFevere Attorney 470 Pilsbury Center Minneapolis, MN 55402 612-337-9215 clefevere@kennedy-graven.com	• Legal services.
Timesaver Off Site Secretarial Service	Carla Wirth 28601 Hub Dr Madison Lake, MN 56063 612-251-8999 Timesaver02@aol.com	• Administrative secretary. • Recording secretary for meetings.

c. Solicitations for Services

Minnesota Statutes 103B.227 require watershed management organizations to solicit bids for professional services at least once every two years. The LRRWMO solicited proposals in early 2012 for work to occur 2013 and 2014. The request for proposals was posted in the State Register, with closing dates in March 2012. Thereafter, proposals were reviewed and firms selected. Proposals were sought for the following categories of work:

Legal Services

Proposals received:	Kennedy and Graven
	Flaherty Hood
Selected:	Kennedy and Graven
Date of selection:	April 19, 2012

3rd Generation Watershed Management Plan Implementation
(water monitoring, public education, annual reporting, etc)

Proposals received:	Anoka Conservation District
Selected:	Anoka Conservation District
Date of selection:	May 17, 2012

Engineering Services, including permit review and WCA TEP Representative

Proposals received:	Barr Engineering
	Houston Engineering
	Stonebrooke Engineering
	Emmons and Olivier Resources, Inc.
Selected:	Barr Engineering
Date of selection:	May 17, 2012

Secretarial Services

Number proposals received:	2
Selected:	Timesaver Off Site Secretarial
Date of selection:	April 19, 2012

d. Implementation of Watershed Management Plan

The current LRRWMO Watershed Management Plan was approved by the Minnesota Board of Water and Soil Resources (BWSR) in late 2011 and adopted by the LRRWMO on January 19, 2012. Implementation began that same year. On the whole, the plan contains a detailed schedule of tasks that the LRRWMO should accomplish each year in order to realize its goals. The table on the following page compares planned work to our accomplished work.

The LRRWMO deviated from its work plan in the following ways:

Change Removed Rogers and Sunfish Lake water quality monitoring.

Reason	Sunfish Lake is being monitored by the Anoka Ramsey Community College. Rogers Lake was dropped because the lake is already designated as impaired and efforts should go toward water quality improvement.
Change	Eliminated river water quality monitoring from the top and bottom of the WMO's jurisdictional area.
Reason	MPCA will be conducting monitoring starting in 2013 for the Rum River Watershed Restoration and Protection Project.
Change	Did not monitor groundwater levels or trends.
Reason	Groundwater monitoring is best done at a regional level. The MN DNR has taken the lead.

Comparison of work planned in the LRRWMO Watershed Management Plan and work accomplished. Information is shown beginning in 2012, the first year of implementation of the 3rd Generation Plan. The work plan for 2013 is also shown.

	2012		2013	
Task	**Planned**	**Accomplished**	**In Watershed Plan**	**Plan to Do**
Monitoring				
Lake levels	Itasca, Round, Sunfish, Rogers Lakes	Itasca, Round, Sunfish, Rogers Lakes	Itasca, Round, Sunfish, Rogers Lakes	Itasca, Round, Sunfish, Rogers Lakes
Lake water quality	Round, Rogers, Sunfish Lakes	Round Lake. Sunfish Lake done by community college.	Sunfish Lake	By community college
Stream water quality	Trott Br	Trott Br	Trott Br	By MPCA
Stream hydrology	Trott Br	Trott Br	Trott Br	-
Stream rating curve	Trott Br	Trott Br		
River water quality	Top/ bottom of WMO area		Top/bottom of WMO area	1 site monitored by MPCA
River biomonitoring with St Francis High School classes	Rum R near St. Francis HS	Rum R near St. Francis HS	Rum R near St. Francis HS	Rum R near St. Francis HS
Reference wetland hydrology	2 sites	2 sites	3 sites	3 sites
Water Quality Improvement Projects				
Water quality improvement cost share fund	$1,000	$1,000	$1,000	$1,000
Education				
Website or newsletter	• WMO website. • Web video – scenic river rules.	• WMO website. • Web video – scenic river rules.	• WMO website. • Unspecified promotion of water quality practices.	• Annual newsletter • Website overhaul. • Web video - water conservation.
Elected officials info dinner				April 25, 2013 event planned
Wetland Education			Wetland ed – website, property owner packet, newsletter articles, local officials workshop	Wetland ed – website, property owner packet, newsletter articles, local officials workshop
Inventories and Studies				
Study groundwater levels, trends	Yes		Yes	County geologic atlas phase I to be completed.
Anoka dam assessment			Yes	Being led by City of Anoka, with WMO involvement
Planning and Reports				
Annual Report to BWSR	Write and submit	Wrote and submitted	Write and submit	Write and submit
Annual Report to State Auditor		Wrote and submitted		Write and submit
Review member cities' annual reports to the LRRWMO	Review cities' reports	LRRWMO Bd will do.	Review cities' reports	LRRWMO Bd will do.
Review revised city Local Water Plans	Yes	None ready for review	Yes, due Dec. 2013	Will review all 4 city local water plans

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e. Status of Local Plan Adoption and Implementation

All LRRWMO member cities have local water plans must be updated for consistency with the LRRWMO Watershed Management Plan, which was adopted in January 2012. These updates are due December 14, 2013. The City of Andover has been granted an extension because there city is in both the LRRWMO and Coon Creek Watershed District (CCWD), which is presently updating its watershed plan. The extension will allow the city to perform updates needed for both watershed organizations simultaneously. The City of Coon Rapids may similarly delay local water plan updates as the city petitions to have portions of their city in the LRRWMO be incorporated into the CCWD.

To track member cities' progress on local plan implementation, the LRRWMO requires a brief annual report from each city and provides a template for this report. In addition to serving as a reporting tool, we hope that the template serves as a "to do" list for our cities. These reports are available upon request, and are summarized in the table below.

Status of city local water plans and some recent accomplishments toward plan implementation.

City of Andover	
Local Water Plan Status	Andover is in the process of updating its local water plan for consistency with the LRRWMO plan, and estimates completion in June 2014. The LRRWMO has formally granted an extension to this timeline. The city has all of the ordinances required by the LRRWMO, except a floodplain ordinance. A floodplain ordinance is anticipated to be completed by December 2013.
Submitted 2012 annual report to LRRWMO?	Yes
Some Recent Implementation Accomplishments	• Street sweeping completed annually. • Water control structures and stormwater treatment basins are inspected ever five years. • The City recently purchased open space, Martin's Meadows. Efforts underway include prairie establishment, buckthorn control, and scenic overlook site stabilization. • Reached 3,300 households repeatedly with multiple public education efforts including newsletter articles, brochures available at city hall, local television announcements about water quality, and similar information at the North Suburban Home Show. Topics have included lawn care, adopt-a-park, picking up pet waste, wetland protection BMPs, controlling invasive species, water conservation, and yard waste management. • During a 2012 street reconstruction additional stormwater treatment was added, including weirs and sumps. • Andover is actively inspecting its outfalls into the Rum River and other public waters. Records are maintained in Geomoose software. • Periodic inspections of active developments to ensure adequate erosion and sediment controls are in place. • Habitat improvement projects such as Kelsey Round Lake Park are ongoing.

City of Anoka

Local Water Plan Status	Anoka is in the process of updating its local water plan for consistency with the LRRWMO plan, and estimates completion November 2013. The city has all of the ordinances required by the LRRWMO, and will review them for consistency.
Submitted 2012 annual report to LRRWMO?	Yes
Some Recent Implementation Accomplishments	• Street sweeping the city three times annually and the downtown weekly in season. • Inspected water level controls annually and basins bi-annually. • Cleaned three of five stormwater separators, generating 20 cy of disposed material. • Cleaned one stormwater pond, generating 100 cy of disposed material. • Installed one Vortec separator and one sump with screen in 2012. • Reach 7,500 households with a newsletter article about yard waste disposal, brochure about phosphorus, and others about water conservation and hazardous waste disposal. • Wellhead protection efforts including education about hazardous waste. • Identify and address stormwater issues during each roadway project.

City of Coon Rapids

Local Water Plan Status	The City of Coon Rapids will petition BWSR to have the small portions of the city in the LRRWMO incorporated into the Coon Creek Watershed District. A local water plan update is anticipated to be completed in February 2013. The city has all of the ordinances required by the LRRWMO.
Submitted 2012 annual report to LRRWMO?	Yes
Some Recent Implementation Accomplishments	• Street sweeping three times per year, collecting 6,810 cubic yards of material in 2012. • Inspected and cleaned 20% of water control structures and treatment basins annually. • Illicit discharge detection and elimination in two instances in 2012. • Vacuumed and cleaned 20% of all structures. • Educational materials mailed to 25,776 households on topics of water conservation, hazardous waste disposal, yard waste management, and pet waste disposal. Educational media used included newsletters, website, and local television. • Additional work part of the City's Storm Water Pollution Prevention Program.

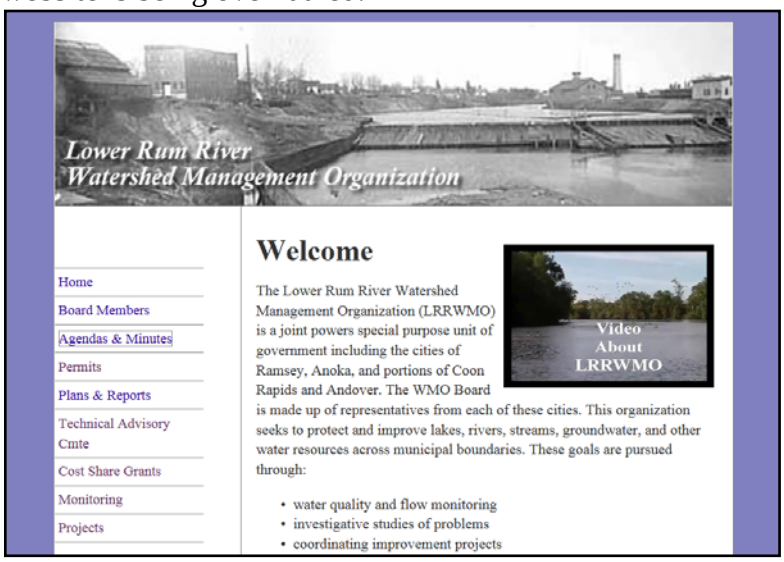
City of Ramsey

Local Water Plan Status	Anoka is in the process of updating its local water plan for consistency with the LRRWMO plan, and estimates completion September 2013. The city has all of the ordinances required by the LRRWMO.
Submitted 2012 annual report to LRRWMO?	Yes
Some Recent Implementation Accomplishments	• Annual street sweeping. • Implementing a five year plan for inspecting stormwater ponds. • Reached 9,500 households in 2012 with newsletters about wetland protection and water conservation. • Held an annual environmental expo community event.

f. Public Outreach

The LRRWMO and its member cities do regular public outreach and education projects. These include:

- **WMO website**, including general information about the organization, the watershed management plan, meeting agendas and minutes, water monitoring results, profiles of WMO projects, access to mapping and data access tools, and others. In 2013 the website is being overhauled.



- **Newsletter articles** – Articles are published by each of the member cities and printed in their newsletters. Copies of several of these articles are provided in Appendix C.
- **Public officials meetings** – In 2013the LRRWMO is hosting a dinner meeting for local officials. The purpose is to ensure elected officials understand the role of the WMO and discuss upcoming projects. Such a meeting was last held in 2008.
- **Bi-annual river float with city officials and staff** – Every other year the WMO Board, along with city staff and officals, floats the Rum River. The trip is an opportunity to inspect for violations or problems, as well as share an appreciation of the river with decision-makers.
- **A wetland education series –** From 2013 to 2020 the LRRWMO is conducting a six-part education program about wetlands. The purpose is to improve public understanding of wetland values and rules. It includes on-line resources, property owner packets, newsletters, signage near public wetlands, elected officials workshops, and local events exhibits.

g. Permits, Variances, and Enforcement Actions

The LRRWMO's permit activity is summarized in the table below.

Permit Name	Permit #	City	Summary
Oakwood Wetland Bank	**2012-01**	Ramsey	Received Part B of the wetland application for a 6.8-acre wetland creation south of 167th Avenue and west of T.H. 47—**Project was approved.**
North Commons Park	**2012-02**	Ramsey	Park located within Ramsey Town Center. Stormwater requirements, rate, volume, and water quality management provided through existing infrastructure—**Project was approved.**
Sunwood Drive Realignment	**2012-03**	Ramsey	C.S.A.H. 83 reconstructed between U.S. 10 and Sunwood Drive Intersection—**Project was Approved**
Riverway Clinic	**2012-04**	Anoka	Riverway Clinic to be located at Jacob Lane and Greenhaven Road. Stormwater management requirements are met—**Project was approved.**
2012 Stormwater Improvements	**2012-06**	Ramsey	Storm sewer improvements in the area of 6310 163rd Lane—**Project was approved.**
Castle Field	**2012-07**	Anoka	New baseball field at Anoka High School. Stormwater management requirements are met—**Project was approved.**
North Commons-Ramsey Town Center	**2012-09**	Ramsey	13-acre, 17-lot single-family residential subdivision within the Ramsey Town Center—**Project was approved.**
Barrott Garage Construction	**2012-10**	Andover	Garage to be constructed adjacent to a land-locked basin. Variance requested for low floor to be constructed lower than the required 2 feet of freeboard. Indemnification waiver submitted—**Project was approved.**
Sunwood Retail	**2012-11**	Ramsey	5.1-acre site located in Ramsey Town Center. Volume reduction provided on-site with water quality provided in a downstream regional basin—**Project was approved.**
Northgate Performing Arts Center	**2012-12**	Ramsey	1.4-acre site located in Ramsey Town Center. Volume reduction provided on-site with water quality provided in a downstream regional basin—**Project was approved.**
Quality R.V. Parking Lot Expansion	**2012-15**	Ramsey	Expansion of existing/display lot at 8170 Highway 10. On-site basins provided stormwater management, meeting LRRWMO criteria—**Project was approved.**
Seasons of Ramsey	**2012-19**	Ramsey	Replat of a portion of Town Center Garden, 3rd Addition. 5-acre site with 52 multi-family units proposed. Stormwater management meeting LRRWMO stormwater management requirements provided within an existing depression area located at 147th Lane NW and Rhinestone Street NW—**Project was approved.**
Rum River Regional Trail	**2012-20**	Anoka	8-foot wide paved off-road connection of the Rum River Regional Trail through River Front Park—**Project approved.**

h. Status of Locally Adopted Wetland Banking Program

- The LRRWMO, in July of 1992, approved a mitigation policy whereby Anoka County will be allowed to accrue up to one acre of wetland losses; at which time that entity would be required to replace the total accrued lost wetland acreage. However, a ranking system for providing wetland area greater than required is pending.
- Only one developer, Russell Johanson, has qualified and banked approximately 0.6864 acres of excess wetland. A certain amount of those banked credits have been purchased by an adjacent property owner.
- The LRRWMO, on July 17, 2008, accepted the recommendation of TEP on certification of the Alpine Park wetland bank for the maximum amount allowable by BWSR (0.38 acres of new wetland credit and 0.38 acres of upland buffer) and ACOE (0.38 acres of wetland credit and 0.50 acres of upland buffer).
- The LRRWMO, on February 18, 2010, accepted the recommendation of TEP to approve the optional purchase of 5,360 square feet of wetland replacement credits to satisfy the wetland replacement mitigation requirements for Permit #2004-25, Kimberly Oaks, in Andover. Approval was subject to the conditions that a minimum of 5,360 square feet of wetland replacement credit must be purchased from a state-certified wetland bank within Anoka County; and, proof of that wetland bank credit purchase must be provided by April 15, 2010.

i. 2013 Work Plan

Planned 2013 activities are listed in the table below. Most routine administrative tasks are excluded.

Task	Purpose	Description	Locations or Action	Cost
Lake Level Monitoring	To understand lake hydrology, including the impact of climate or other water budget changes. These data are useful for regulatory, building/development, and lake management decisions.	Weekly water level monitoring in lakes by volunteers. All are available on the Minnesota DNR website using the "LakeFinder" feature (www.dnr.mn.us.state \lakefind\index.html).	Itasca Lake Round Lake Sunfish Lake Rogers Lake	$800
Lake Water Quality Monitoring	To detect water quality trends and diagnose the cause of changes.	May through September lake water quality monitoring through the MPCA's volunteer monitoring program. Work is done by Anoka Ramsey Community College.	Sunfish Lake	By comm-unity college
Rum River Invertebrate Biomon-itoring	To assess overall river health. To provide a hands-on educational experience to high school students.	Facilitated by the ACD, science classes from Anoka High School assess aquatic insect populations. Students will collect macroinvertebrate samples, identify them, and calculate indices of river health. Anoka Conservation District staff provide instruction, oversight, and write a final report. This monitoring has been conducted for more than 10 years.	Rum River at Bunker Lake Blvd	$825

Task	Purpose	Description	Locations or Action	Cost
Reference Wetland Hydrology Monitoring	The ACD maintains a network of 18 reference wetlands throughout the county. These data aid in understanding of water conditions in wetlands, surficial water table changes, and trends. It is useful for regulatory determinations (for example, is a dry area actually a wetland, or are all wetlands dry right now?) and resolving water level disputes. Each reference wetland has been monitored for more than 10 years, providing a long term record.	Install and maintain a WL40 electronic water level monitoring device at the edge of reference wetlands. These devices measure water levels every four hours. Data are made available at any time through the ACD website.	AEC Ref Wtld Rum Central Ref Wtld New site TBD	$1,680
LRRWMO Website	To increase awareness of the URRWMO and its programs. The website also provides tools and information that helps users better understand water resources issues in the area. The website serves as the URRWMO's alternative to a state-mandated newsletter.	Maintain and update the WMO website with current information about the organization, and meeting minutes and agendas. Web videos developed by the LRRWMO are also featured on the website.	http://www.anokanaturalresources.com/lrrwmo/	$525 annual maint $875 website over-haul
Promotion of Water Quality Improve-ment Projects	To increase awareness of the LRRWMO and its programs, as well as educate the public on water quality issues.	In 2013 a web video about water conservation will be produced and posted to the LRRWMO website.	Watershed-wide	$1,200
Wetland Public Education	To increase public awareness of wetland values and regulation.	In 2013: 1. Website. 2. Property owner packet 3. City newsletter articles 4. Local officials workshop	Watershed-wide	$11,140
Elected Officials Meeting	To inform city councils about the WMO and discuss upcoming projects.	An April 23, 2013 evening meeting featuring three guest speakers.	Watershed-wide	$0
Prepare Annual Report to State Auditor	To provide transparency and accountability of organization operations.	An annual financial report and online reporting of WMO finances though the State Auditor's SAFES website is completed by the WMO's Deputy Treasurer.	Watershed-wide	$0
Prepare Annual Report to BWSR	To provide transparency and accountability of organization operations.	Produce an annual report of WMO activities and finances that satisfies Minnesota Rules 8410.0150.	Watershed-wide	$850

Task	Purpose	Description	Locations or Action	Cost
Cost Share Grants for Water Quality Improve-ment	To improve water quality in lakes, rivers, and streams.	These grants offer up to 70% cost sharing of the materials needed for a water quality improvement project. Typical projects include erosion correction, lakeshore restoration, and rain gardens. The Anoka Conservation District provides administration.	Offer grants	$1,000
Review Member City Local Water Plans	To ensure consistency between the WMO plan and city plans.	The WMO will review each city's local water plan for consistency with the 3rd Generation LRRWMO plan, and provide approval. Deadline is December 14, 2013.	Watershed-wide	$2,000
Anoka Dam Assessment	To ensure proper maintenance and viability of the dam. Consideration is given to modifying the dam to serve as an Asian carp barrier.	The City of Anoka is seeking an engineering study to determine maintenance needed and modifications for the dam to serve as a carp barrier. The LRRWMO is playing a supporting and coordinating role.	Anoka Dam	$3,000

The LRRWMO deviated from its watershed management plan for 2013 in the following ways:

Change Added an evening meeting with elected officials from each member city.
Reason While not in the watershed plan, it is the intent of the WMO to periodically meet with elected officials to ensure the understand the WMO and discuss upcoming projects.

Change Removed Trott Brook stream water quality monitoring.
Reason The MPCA is monitoring this site in 2013.

Change Removed Trott Brook stream hydrology monitoring.
Reason The primary purpose of hydrology monitoring at this site would be to calculate pollutant loadings from water quality monitoring data. No water quality monitoring is planned at this site in 2013.Z

Change Removed Sunfish Lake water quality monitoring.
Reason Sunfish Lake is being monitored by the Anoka Ramsey Community College.

Change Did not monitor groundwater levels or trends.
Reason Groundwater monitoring is best done at a regional level. The MN DNR has taken the lead.

III. Financial and Audit Report

a. 2012 Financial Summary

See Appendix A.

b. Fund Balances

See Appendix A.

c. Financial Audit Documentation

An annual financial report is complete. That report is Appendix A.

The WMO understands that BWSR is revising MN Rules 8410 to require audits for WMOs with annual expenditures <$150,000 once every five years. The LRRWMO anticipates this rule revision, and plans on that timeline.

d. 2013 Budget

At its January 17, 2013 meeting the LRRWMO Board approved the 2013 budget shown below.

REVENUE:	
Assessments	
Andover	$ 13,578
Anoka	$ 10,815
Coon Rapids	$ 918
Ramsey	$ 24,689
	$ 50,000
Permits	$ 20,000
Interest earnings	$ 100
TOTAL REVENUES	$ 70,100
EXPENDITURES:	
Engineering	$ 3,500
Permit Review	$ 16,000
Legal	$ 4,350
Financial Services	$ 2,400
Secretarial Services	$ 7,000
Postage, Copying, etc.	$ 1,500
Insurance	$ 2,300
Promotion of WQ Projects/Education	$ 1,200
Web Site Maintenance	$ 1,400
Report to BWSR	$ 850
Grant funding	$ 2,000
Lake Level Monitoring	$ 800
Lake, River & Stream quality monitoring	$ 2,300
Stream Hydrology, rating & biomonitoring	$ 1,000
Wetland Hydrology monitoring	$ 1,800
Review city local water plans for compliance	$ 2,000
Anoka Dam Assessment	$ 3,000
Wetland Public Education	$ 11,140
Miscellaneous	$ 3,000
TOTAL	$ 67,540
NET INCOME	$ 2,560

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Appendix A:

2012 Financial Report

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LOWER RUM RIVER WATER MANGEMENT ORGANIZATION

ANNUAL FINANCIAL REPORT

For the year ended January 31, 2013

Prepared by the Deputy Treasurer

Lori Yager

LOWER RUM RIVER WATER MANAGEMENT ORGANIZATION

Annual Financial Report

Year ended January 31, 2013

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Lower Rum River Water Management Organization Board

Appointed Officials

January 31, 2013

Todd Haas, Chair

Ron Manning, Vice Chair

Mark Kuzma, Secretary

Carl Anderson, Treasurer

Administrative Staff

Carla Wirth	Administrative Secretary
Lori Yager	Deputy Treasurer

LOWER RUM RIVER WATER MANAGEMENT ORGANIZATION

BALANCE SHEET
JANUARY 31, 2013

Assets		
Current assets:		
Cash and investments	$	63,128
Accounts receivable		3,978
Total current assets		67,106
Liabilities		
Current liabilities:		
Accounts payable		2,401
Deposits		33,359
Total current liabilities		35,760
Net Assets		
Unrestricted		31,346
Total liabilities and net assets	$	67,106

LOWER RUM RIVER WATER MANAGEMENT ORGANIZATION

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS
BUDGETARY COMPARISON SCHEDULE
YEAR ENDED JANUARY 31, 2013

	Final Budget	Actual	Variance from Budget Positive (Negative)
Operating Revenues			
Assessments from participating cities	$ 80,000	$ 80,000	$ -
Permits			
Service fees	2,000	1,920	(80)
Engineering fees	18,000	14,253	(3,747)
Intergovernmental	-	2,405	2,405
Miscellaneous	-	16	16
Total revenues	100,000	98,594	(3,827)
Operating Expenses			
Engineering Fees:			
Permits	16,000	14,253	1,747
3rd Generation Manangement Plan	-	1,063	(1,063)
Administrative	3,500	882	2,618
Legal and professional fees	8,350	1,652	6,698
Insurance	2,200	1,371	829
Secretarial services and supplies	11,500	8,881	2,619
Projects	29,050	12,050	17,000
Other	6,000	5,959	41
Total expenditures	76,600	46,111	30,489
Operating income (loss)	23,400	52,483	26,662
Nonoperating revenues:			
Interest income	100	21	(79)
Change in net assets	$ 23,500	52,504	$ 26,662
Net assets at beginning of year		(21,158)	
Net assets at end of year		$ 31,346	

(Unaudited)

LOWER RUM RIVER WATER MANAGEMENT ORGANIZATION

STATEMENT OF CASH FLOWS
YEAR ENDED JANUARY 31, 2013

Cash flows from operating activities:		
Received from member cities	$	80,000
Received from customers		20,674
Received from other governments		2,405
Payments to suppliers for goods and services		(50,189)
Net cash provided by (used in) operating activities		52,890
Cash flows from investing activities:		
Investment earnings		21
Net increase in cash and investments		52,911
Cash and cash equivalents at beginning of year		10,217
Cash and cash equivalents at end of year	$	63,128
Reconciliation of operating income (loss) to net cash provided (used) by operating activities:		
Operating gain	$	52,504
Change in assets and liabilities:		
Accounts receivable		(3,978)
Due from other governmental units		0
Accounts payable		(4,078)
Deposits		8,463
Total adjustments		407
Net cash provided by operating activities	$	52,911

LOWER RUM RIVER WATER MANAGEMENT ORGANIZATION

NOTES TO FINANCIAL STATEMENTS

JANUARY 31, 2013

1. NATURE OF THE ORGANIZATION

The Organization is a watershed management organization which has been created to fulfill the requirements and purposes of Minnesota Statutes 103B.201 to 103B.251. The purpose of such an organization as defined by Minnesota Statutes 103B.201 is to "protect, preserve and use natural surface and ground water storage and retention systems in order to (a) reduce to the greatest practical extent the public capital expenditures necessary to control excessive volumes and rate of runoff, (b) protect and improve surface and ground water quality, (c) prevent flooding and erosion from surface flows, (d) promote ground water recharge, (e) protect and enhance fish and wildlife habitat and water recreational facilities, and (f) secure the other benefits associated with the proper management of surface and ground water."

The cities of Anodover, Anoka, Coon Rapids and Ramsey formed the Organization by executing a joint powers agreement in accordance with Minnesota Statute 103B.211 dated July 15, 1985.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying summary of significant accounting policies is presented to assist the reader in understanding the Organization's financial statements. The financial statements are representations of the Organization's Board which is responsible for their integrity and objectivity. The following is a summary of the more significant accounting policies:

A. Measurement Focus, Basis of Accounting, and Financial Statement Presentation

The financial statements are reported using the "economic resources" measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Private-sector standards of accounting and financial reporting issued prior to December 1, 1989, generally are followed in both the government-wide and proprietary fund financial statements to the extent that those standards do not conflict with or contradict guidance of the Governmental Accounting Standards Board. Governments also have the option of following subsequent private-sector guidance for their business-type activities and enterprise funds, subject to this same limitation. The Organization has elected not to follow subsequent private-sector guidance.

Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the principal ongoing operations. The principal operating revenue of the Organization are charges to customers for permits. Operating expenses for the Organization include engineering services and administrative expenses. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

B. Cash and cash equivalents

Cash balances are invested to the maximum extent possible. For the purposes of the statement of cash flows, the Organization considers all highly liquid investments with a maturity of three months or less when purchased to be "cash equivalents".

C. Income taxes

As a joint powers watershed management organization, the Organization is exempt from both Federal and Minnesota income taxes. Accordingly, no provision for income taxes is included in these financial statements.

D. Receivables and Payables

Receivables represent outstanding reimbursements from permit holders for work already completed and paid for by the Organization. Payables are recorded for services completed for the Organization but unpaid as of the end of the current fiscal year. Deposits represent amounts owed to permit holders at year end for services yet to be done.

3. CASH AND INVESTMENTS

The Organization follows State Statute guidelines for investment purposes. The State Statute allows for investments in United States securities, state and local government general obligation securities rated "A" or better by a national bond rating agency, state and local government revenue securities rated "AA" or better by a national bond rating agency, commercial paper rated in the highest quality category by two national rating agencies and that mature in 270 days or less, certificates of deposit, bankers acceptance and repurchase agreements.

(a) Interest Rate Risk

Interest rate risk is the risk that the fair value of investments will be adversely affected by a change in interest rates. The Organization does not have a formal investment policy related to interest rate risk. As of January 31, 2012 the Organization had the following investments and maturities:

Investment type:	Fair Value	Less than one year
Money Market Account	$ 63,128	$63,128

3. CASH AND INVESTMENTS (continued)

(b) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Credit risk is measured using credit quality ratings of investments in debt securities as described by nationally recognized rating agencies such as Standard & Poor's and Moody's.

The following table lists the credit quality ratings per Moody's and/or Standard and Poor's of the Organization's investments as of January 31, 2013:

Investment type:	Fair Value	Unrated
Money Market Account	$ 63,128	$63,128

(c) Custodial Credit Risk

Custodial credit risk is the risk that, in the event of the failure of a counterparty, the Organization will not be able to recover the value of the investments, collateral securities, or deposits that are in the possession of the counterparty. The Organization does not have a formal policy related to custodial credit risk of investments or deposits. At January 31, 2013 all of the Organization's investments are insured and registered, and are held by the counterparty's agent in the Organization's name.

4. REVENUES

Assessments from participating cities:

Member cities are assessed on an annual basis for estimated Organization costs by motion of the Organization's Governing Board. Administrative and planning costs are apportioned by a formula taking into account both valuation and gross area equally. Projects and improvement costs are charged to the benefiting properties by a formula adopted by the Organization's Governing Board. Member city assessments for administrative and planning costs were as follow:

	Year Ended January 31, 2013
Andover	$21,606
Anoka	17,342
Coon Rapids	1,890
Ramsey	39,162
	$80,000

4. REVENUES (continued)

Permits:

The Organization issues permits for construction to cover the costs associated with the review of grading, drainage and erosion control plans of the projects to improve overall water quality. The Organization earns $100 for administrative costs for each permit it processes. A deposit is received upon application of the permit which is used to cover the administration costs and all professional services incurred to complete the permit process. Any remaining deposit excess is refunded upon issuance of the permit.

5. RISK MANAGEMENT

The Organization participates in a public entity risk pool to mitigate its exposure to these risks. Liability coverage's are provided through a pooled self-insurance plan with other cities. The Organization has a $250 deductible per occurrence for its coverage.

Appendix B:

Newsletter Articles

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City of Anoka 2012 Newsletter articles pertaining to the LRRWMO and water resources.

ANOKA
REAL. CLASSIC.

City View

October 2012

Fall

Seasonal Reminders from Public Services

The Streets Department is busy sweeping leaves to prevent blocking catch basins and the storm sewer system. It is illegal to sweep, rake, or blow leaves or snow from your property into the street. Please remember that storm drains provide a direct route for pollutants on streets to flow into our rivers, streams, and lakes. "Only Rain Down The Drain."

Winter Policies for an Easier and Safer Season

The Public Services Department asks for your help to keep the sidewalks near your home open for pedestrian traffic. After a 2-inch snowfall, we will assist with the removal of snow from the walks as quickly as possible.

If a fire hydrant is located near your home, the Water Department request residents to clear a small path to the hydrant after a snowfall for easier location in emergencies. The Water Department will widen the area as time allows.

The Streets Department is responsible for clearing the roadways. The City uses the "2-inch rule" to warrant full plowing operations. In the event of a 2-inch or greater snowfall, City crews will plow all the streets in town. Snowplow crews have difficulty moving around cars parked or stranded on the street. Any car left in the street will be towed at the owner's expense, plus the owner will receive a ticket for blocking the street.

It is unlawful to push, shovel, blow, or place snow onto public streets or walks. Equipment operators and personnel have been instructed to contact the Police Department if they observe residents or businesses doing so.

Think safety first! Please do not build "snow forts" in the snow banks along the streets. They are dangerous, especially when the plow operators are plowing and moving snow.

After plowing, salt and/or sand is applied to reduce intersections or as needed to control icing problems. Residents may call the Streets Department (763-576-2822) if severe icing problems develop due to sun polishing or glazing of hard packed snow.

While every effort is made to avoid damage to adjacent areas, the City will not be liable for damage to obstacles such as posts, shrubs, sprinkler heads, or ornaments placed within the City right-of-way. The City of Anoka assumes liability for mailboxes damaged during plowing operations ONLY when it is determined that the plowing unit made direct contact with a mailbox. In general, the right-of-way extends to the home side of sidewalks or 15-to-14 feet from the curb where there is no sidewalk. Delineating the curb with wood laths just behind the curb helps operators and may reduce damage to the boulevard. Wood laths should be four feet long with the top four-to-six inches painted fluorescent orange. They are available at lumber retailers.

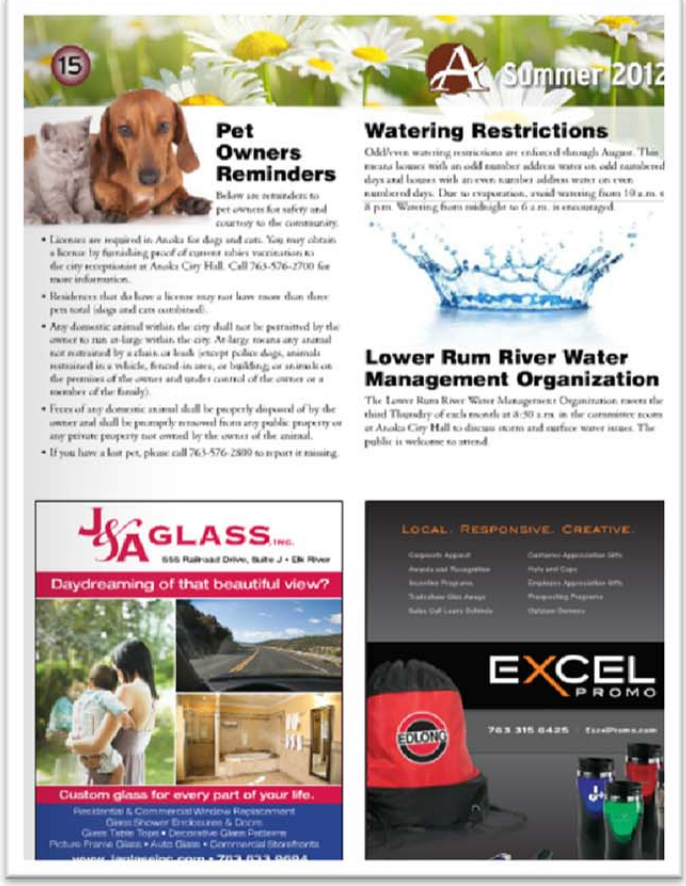
Garbage and recycling containers must be placed behind the curb, not in the streets. To avoid postal interruption, clear an area in front and on each side of your mailbox.

Don't rake the plowed in driveways personally! To efficiently plow streets, the plows must maintain a constant speed and blades cannot be lifted for driveways. Thank you.

If you have questions, please call 763-576-2822 for snow removal or icing on streets and 763-576-2880 for sidewalks.

Overview

www.ci.anoka.mn.us



15

Summer 2012

Pet Owners Reminders

Below are reminders to pet owners for safety and courtesy to the community.

- Licenses are required in Anoka for dogs and cats. You may obtain a license by furnishing proof of current rabies vaccination to the city receptionist at Anoka City Hall. Call 763-576-2700 for more information.
- Residences that do have a license may not have more than three pets total (dogs and cats combined).
- Any domestic animal within the city shall not be permitted by the owner to run at-large within the city. At-large means any animal not restrained by a chain or leash (except police dogs), animals restrained in a vehicle, fenced-in area, or building, or animals on the premises of the owner and under control of the owner or a member of the family).
- Feces of any domestic animal shall be properly disposed of by the owner and shall be promptly removed from any public property or any private property not owned by the owner of the animal.
- If you have a lost pet, please call 763-576-2880 to report it missing.

Watering Restrictions

Odd/even watering restrictions are enforced through August. This means homes with an odd number address water on odd numbered days and homes with an even number address water on even numbered days. Due to evaporation, avoid watering from 10 a.m. to 8 p.m. Watering from midnight to 6 a.m. is encouraged.

Lower Rum River Water Management Organization

The Lower Rum River Water Management Organization meets the third Thursday of each month at 8:30 a.m. in the committee room at Anoka City Hall to discuss storm and surface water issues. The public is welcome to attend.

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8

Clean Yard, Clean Water

How a tidy yard can help local water quality

Not in my backyard! The phrase has long been a rallying cry for communities concerned about factories, mines, and other polluters who impair local water quality. Many people are unaware, however, that a large part of the water pollution problem can be traced right back to their own backyards. Surface runoff, often called stormwater runoff, carries untreated sediments and toxins off lawns, gardens, and driveways directly into local watersheds.

Yard waste that sits around can easily wash into storm drains when it rains. Even if the waste doesn't contain chemicals such as herbicides and pesticides, the introduction of large quantities of sticks, leaves, and grass clippings can overwhelm water ways with unhealthy quantities of nutrients. Remember, even beneficial and necessary substances can be harmful if there's too much of them, and waterways can't handle the sudden inflow of mass quantities of organic matter washed down storm drains. It's almost impossible to eliminate this type of pollution, but there are some ways to help minimize it.

1. Contain composted yard wastes. Your compost should be contained in a bin or barrel to prevent the materials from being washed away.

2. Use a mulching mower instead of bagging grass clippings. Mulching mowers add a natural layer of compost to your lawn, and you don't have to deal with disposal of grass clippings.

3. Dispose of yard and grass clippings properly. If you don't compost or have yard wastes that you can't compost, contact your garbage hauler about picking up this material. Several haulers offer yard waste pickup as a service. Alternatively, yard waste may be dropped off at the Anoka County compost site at 13285 Hanson Boulevard. Call 763-767-7964 for hours of operation. In any case, bag or otherwise contain the material while it awaits disposal.

4. Contain disturbed soil. If you're revamping your landscape or tearing out old sod, you can end up with big piles of dirt and organic matter. These are highly susceptible to being washed away in runoff and should therefore be covered or otherwise contained, even if they will only be there for a short time.

5. Pick up litter and properly dispose of trash. Litter isn't just unsightly; it can also contribute to water pollution. Just about every material—from paper to cigarette butts to aluminum cans and old appliances—contains chemicals that can leach out into the environment. Everybody knows that littering is a no-no, but it's important to understand that trash or junk sitting in your yard can be just as harmful as trash illegally dumped by the side of the road.

6. Clean up pet waste. Pet waste contains harmful bacteria and other pollutants. While a good rainstorm may wash your dog or cat's waste away, it isn't really gone—it's in the water supply. Promptly pick up after your pet, and seal the waste in a plastic bag before throwing it in the trash.

Thanks to Anoka County Highway Dept

Lower Rum River Watershed Management Organization Update

The Lower Rum River Watershed Management Organization (LRRWMO) recently received approval from the Minnesota Board of Water and Soil Resources (BWSR) of the 3rd generation plan in accordance with Minnesota Rules. The approval of the plan is to provide guidance to the member cities of Andover, Anoka, Coon Rapids and Ramsey to restore the surface water resources (lakes, streams, rivers, wetlands, and protected storm water) within the boundaries of the organization in a consistent, cost effective and environmentally appropriate manner. With more emphasis on clean water nationwide by the federal and state agencies, the watersheds districts and water management organizations metro-wide will be more involved in developing strategies to meet the goals of the watersheds by cooperating and educating residents, City Councils and city staff, developers and other review agencies.

For further information, please contact the city engineer at 763-576-2783 or board representative by viewing www.anokanaturalresources.com/lrrwmo/index.htm

If you are interested in attending an LRRWMO meeting, meetings are held the third Thursday of each month at 8:30 a.m. at Anoka City Hall.

City of Andover 2012 Newsletter articles pertaining to the LRRWMO and water resources.

SUMMER FUN STARTS HERE

YMCA SUMMER RALLY DAYS
March 2 – 4 at Andover YMCA
GET SPECIAL DEALS on Day Camp Guy Robinson & Summer Programs

LEARN MORE AT THE **SUMMER PROGRAMS FAIR**
Saturday, March 3, 9 a.m. – Noon
- Meet staff and talk to the experts
- See videos of summer programs in action
- Fun activities for the kids!
- FREE beach ball with registration

Andover YMCA Community Center
15200 Hanson Boulevard
Andover, MN 55304

NEED YOUR INPUT ON SNOW AND ICE REMOVAL

The Minnesota Pollution Control Agency is conducting a survey on what homeowners do as far as snow and ice removal. Your input on this would be very helpful. The survey is available until March 30, 2012 at the following website: www.anokanaturalresources.com/lrrwmofindex.htm

REMINDER!

Permits may be needed for your yard project, visit http://moourl.com/ckanwatertip1

SPRING WATER MAIN FLUSHING

The Utilities Department will be flushing water mains for approximately a 2-week period beginning April 16th and running through April 27th. If for some reason the weather is bad or other maintenance issues arise, the flushing will be delayed. Regardless of what happens the flushing will be completed by May 1st. You may experience discolored water for a short period of time and a drop in water pressure as the flushing is taking place. There is no cause for alarm as this only poses an aesthetic issue not a health issue. You may however want to check the quality of the water before doing any laundry. The water will be safe for consumption and other uses. The flushing program will take place Monday through Friday during regular business hours of 7:00 a.m. to 3:30 p.m. Please call the Public Utilities Manager at (763) 767-5180 with any questions or concerns.

OPEN SPACE PRESERVATION UPDATE

Spring has arrived and it's time to get out and enjoy the outdoors! Nature trails have been established through Martin's Meadows and North Woods Preserve to help residents enjoy these open space sites. Additional information about the sites and the work of the Open Space Advisory Commission is available at www.andovermn.gov/bc

LRRWMO UPDATE

The Lower Rum River Watershed Management Organization (LRRWMO) recently received approval from the Minnesota Board of Water and Soil Resources (BWSR) of the 3rd generation plan in accordance with Minnesota Rules. The approval of the plan is to provide guidance to the member cities of Andover, Anoka, Coon Rapids and Ramsey to ensure the protection of surface water resources (lakes, streams, rivers, wetlands, ponds and protected storm water) within the boundaries of the organization in a consistent, cost effective and environmentally appropriate manner.

With more emphasis on clean water nationwide by the federal and state agencies, the watersheds districts and water management organizations metro wide will be more involved in developing strategies to meet the goals of the watersheds by cooperating and educating residents, City Councils/City Staff, developers and other review agencies. For further information about the LRRWMO, contact your City Engineer or Board Representative by visiting the website at www.anokanaturalresources.com/lrrwmo/index.htm

Meetings are held the third Thursday of each month at 8:30 a.m. at Anoka City Hall.

UTILITY DEPARTMENT NEEDS YOUR HELP

The City of Andover currently maintains over 90 miles of sanitary sewer mains and 9 pump lift stations. There has been considerable maintenance done to some of the pump stations because of items being introduced to the sewer system. Items such as towels, T-shirts, disinfection type cleaning wipes, tampons and dental floss. The last thing the City wants is to experience a sewer backup in the middle of the night or worse during a holiday season when many homes are entertaining family and friends. All of these items cause major problems with the system, especially the pumping stations. These items get caught up in the pump impellers and valves eventually stopping the pump from operating. The Utilities Department is requesting your cooperation to eliminate this problem by throwing these types of items in the trash. Repairs to these pumps are costly and backups can enter your homes if not caught in time.

CLEAN WATER STARTS AT HOME

Tip #6: Fall Lawn Care Best Practices

Healthy lawns can be good for water quality & healthy soil is key for healthy lawns. The following best practices can result in a healthier yard and help prevent water pollution. By keeping grass clippings, tree leaves, and water on your lawn, you also keep important nutrients needed by grass on your lawn, especially if your lawn is right on top of sand. Otherwise, runoff may carry nutrients like phosphorus plus other pollutants to our waters by taking clippings, leaves or contaminants down a nearby catchbasin which may drain right into a creek, lake, wetland or stormwater pond.

Mulch leaves and grass with your lawnmower. This returns nutrients to the soil and helps keep clippings off the streets and phosphorus out of water. It can also save you money by reducing your fertilizer use by one application per year.

Mow High - 3". That's wider than a dollar bill by ½ inch. This keeps moisture in and shades weeds out. Also, grass roots grow longer and won't dry out as fast.

Aerate your lawn in late August-early September so that water can reach the roots more easily and runoff is minimized. You could try having a football team with cleats practice on your lawn. Or, you could use a core aerator, available for rent at many home & garden stores.


Montgomery Ward Football cleats 1922

If you fertilize, wait until after aeration. The fertilizer can then absorb and be saved for plants in spring. Unless you have tested your soil and need it, make sure the fertilizer has no phosphorus – look for a "0" in the middle of three numbers on the bag indicating nitrogen (N), phosphorus (P), & potassium (K) amounts.

Online Resources:
Aeration - www.gardening.cornell.edu/homegardening/scene5e77.html
Fertilizing: www.extension.umn.edu/distribution/horticulture/DG3338.html

SCHOOL READINESS PROGRAM

Anoka-Hennepin Community Education School Readiness Preschool prepares children for kindergarten. It offers a curriculum taught by licensed teachers, who monitor progress and development throughout the year. The Preschool curriculum is aligned with the district Kindergarten curriculum. Children gain skills and experiences in: learning to follow routines and rules, literacy, writing, mathematics, science, art and music. Classes are held from September to May throughout the Anoka - Hennepin School District. Morning, afternoon and evening times are available. Please call (763) 506-1500 for more information and to register.

LIBRARY FOCUS: FREE COMPUTER CLASSES

Rum River Library will begin hosting free computer classes on Microsoft Word and Excel, taught by Metro North Adult Basic Education staff, in September. These two-day classes—"Word 2010" and "Excel 2010"—will provide attendees with a beginner's hands-on introduction to each of these important software programs.

Excel's Yourself @ your Library

One of the main purposes of these classes is to help unemployed and underemployed people improve their job skills. However, the classes are open to anyone interested in learning more about Word or Excel. Each class will be held at Anoka County Library's Rum River branch, 4201 6th Ave. NW, Anoka, www.anoka.lib.mn.us. Advance registration is required. Anoka County WorkForce Center will manage registration and coordination of all classes, so please contact them at (763) 783-4847 or 1201 89th Ave. NE, Suite 235, Blaine, for additional information and to sign up.

ECFE

Early Childhood Family Education (ECFE) starts fall programming in September! Classes, playtimes and other programs are offered to give parenting information, ideas and skills to support their children's growth and development from birth to kindergarten. Children delight in the variety of fun learning activities provided each week. To find out more information call (763) 506-1275 or visit the us on the web at www.discovercommunityed.com, click on Early Education, ECFE.

ACCAP CHORES & MORE

Over 60??
ACCAP Chores & More

YOUR ONE STOP SHOPPING FOR:

MINOR HOME REPAIRS
HOUSEKEEPING
SEASONAL CHORES
Lawn mowing - Fall clean-up - Snow removal

Call Ann or Judy at (763) 767-6521

We are sorry to announce that we are no longer serving the under 60 disabled population due to funding issues.

Funding is provided by the Older American Act Grant through the Minnesota Board on Aging and the Metro Area Agency on Aging. Chores & More is a program of the Anoka County Community Action Program with funding from the Cities of Anoka and Coon Rapids.

ACCAP Chores & More does not discriminate based upon a persons race, color, national origin, sexual preference, or religious affiliation.

City of Ramsey 2012 Newsletter articles pertaining to the LRRWMO and water resources.

2012 Minnesota Garden Calendar Now Available

The University of Minnesota Extension and Minnesota Agricultural Experiment Station have released Minnesota Gardening 2012, a calendar developed for home gardening and landscape enthusiasts across the state. Minnesota Gardening 2012 is the only calendar designed and written exclusively for Minnesota. It is the perfect complement to any gardener's collection.

Each month, in addition to the full-page color photo, the calendar features timely tips for lawn, garden and houseplant care, maps of average frost-free dates, and USDA Plant Hardiness Zones for Minnesota. The calendar is spiral bound. New this year: the calendar is larger, 13" x 9 1/2"; it includes more pictures and more room to write in day blocks; the tips are shorter and include name/link for online publications; and it includes a special section on protecting bees.

Minnesota Gardening 2012 is available at the Anoka County Extension office. The price is $15 per calendar (extra charge for mailing the calendar). Individuals interested in purchasing the calendar can stop by the Extension office at 550 Bunker Lake Boulevard NW in Andover, or call the office at 763-755-1280. Office hours are 8:00 am to 4:30 pm.

Dollars Into Sense Classes

Anoka County Extension staff and Dollar Works volunteers will present Free Dollars Into Sense classes on January 17 and February 21, 2012, at 10:00 am at the Bunker Hills Activities Center (550 Bunker Lake Blvd, Andover) and again at 7:00 pm at the Anoka County Human Services Center (1201 89th Ave, Blaine). To register, call the University of Minnesota Extension, Anoka County, at 763-755-1280 at least three days prior to the class you wish to attend. Classes will cover budgeting and addressing credit issues, tracking expenses, making a spending plan, goal setting, and tips on how to get help.

Homeowner Education for Septic Systems

Homeowners wanting to better understand, operate, and maintain their septic systems should attend a Homeowner Education for Septic Systems program presented by the University of Minnesota Extension. Learn about water saving ideas, find out if you should be using additives, and get your questions answered.

This two-hour program will be held Tuesday, March 6, from 7:00–9:00 pm at the Bunker Hills Activities Center, 550 Bunker Lake Blvd NW in Andover. The cost to attend is $10. You will receive the University of Minnesota Extension Septic System Owner's Guide at the class.

Pre-registration is required. You can get the flyer and registration form online at www.extension.umn.edu/county/anoka and look under Publications in Anoka County. Or, call the University of Minnesota Extension, Anoka County at 763-755-1280 to request the flyer and registration form. Presentation of this program is partially covered by an Anoka County Ag Preserves Grant and is presented by Valerie Prax, Retired Extension Educator.

Annual Stormwater Management Informational Open House

The city will be holding its Annual Stormwater Management Informational open house on Thursday, March 22, 2012, from 5:30 – 7:00 pm in the Mississippi River Room at the Ramsey Municipal Center, located at 7550 Sunwood Drive NW. This open house is an opportunity for residents to gain information, ask questions, and provide comments on the city's overall stormwater management plan associated with our required Municipal Separate Storm Sewer System (MS4) permitting through the Environmental Protection Agency, as administered by the Minnesota Pollution Control Agency. Questions or comments from those unable to attend this open house may be directed to Leonard Linton at 763-433-9834, or llinton@ci.ramsey.mn.us.

Lower Rum River Watershed Management Organization Update

The Lower Rum River Watershed Management Organization (LRRWMO) recently received approval from the Minnesota Board of Water and Soil Resources on its 3rd generation plan in accordance with Minnesota Rules. This plan provides guidance to the member cities of Ramsey, Andover, Anoka, and Coon Rapids to ensure the surface water resources (lakes, streams, rivers, and wetlands) within the boundaries of the organization are managed in a consistent, cost effective, and environmentally appropriate manner. With more federal and state emphasis on clean water initiatives nationwide, metro watershed districts and water management organizations are becoming more involved in developing strategies to meet mandated clean water goals at the local level. The LRRWMO is focusing efforts to promote enhanced educational outreach and cooperation among residents, cities, developers, governmental agencies, and other potential stakeholders. For more information about this 3rd generation plan, the LRRWMO, or the city of Ramsey's role in this watershed organization, feel free to contact Tim Himmer, City Engineer at 763-433-9893 or thimmer@ci.ramsey.mn.us.

For general information regarding the LRRWMO you may visit their website at http://www.anokanaturalresources.com/lrrwmo/index.htm. You are also welcome and encouraged to attend the monthly board meetings of this organization, which are held the third Thursday of each month beginning at 8:30 am at Anoka City Hall, 2015 First Avenue North. Agendas for all meeting dates are posted on the LRRWMO website referenced above.

Snow and Ice Removal

The Minnesota Pollution Control Agency is conducting a survey to gather information on how property owners address snow and ice removal during the winter. As you are the target audience for this endeavor, your input would be extremely helpful. Please take a few minutes to complete the survey; a link is provided on the LRRWMO website at http://www.anokanaturalresources.com/lrrwmo/index.htm until March 30, 2012.

Peddlers and Solicitors

Peddlers and solicitors who wish to do business in Ramsey are required to obtain a permit. This includes anyone going door to door soliciting or taking orders for goods, wares and merchandise, or maintenance or repair services, such as furnace cleaning, roof repair and blacktopping. This does not include anyone going door to door on behalf of a bona fide charitable, religious, civic, educational or political organization.

In addition to a license, each peddler/solicitor is issued an identification badge provided by the city. The badge includes the solicitor's name, business name, photo, and expiration date. All persons authorized to conduct door to door solicitation must be wearing a city-issued identification badge. The hours for this activity are restricted to 9:00 am to 9:00 pm, unless a previous appointment has been scheduled.

Any resident of the city who wishes to exclude peddlers or solicitors from their premises may place a printed placard or sign on or near their main entrance that says the following: "Peddlers and Solicitors Prohibited". (The sign must be at least 3-1/2 inches long and 3-1/2 inches wide and the printing must not be smaller than 49 point type.) Peddlers and solicitors are then prohibited from entering in or upon the premises.

If you have question about obtaining a Peddlers/Solicitors license, please contact Jo Thieling at 763-433-9840 or jthicling@ci.ramsey.mn.us.

To report a peddler or solicitor that is not complying with the city's requirements, please contact a Ramsey Police Officer immediately (24 hours a day), via dispatch at 763-427-1212.

Attention: City Water Customers Odd/Even Day Sprinkling Ban

To reduce peak water usage in areas served by the municipal water system, the city of Ramsey has implemented an odd/even day sprinkling ban, pursuant to City Code, Section 58-118. The sprinkling ban will be in effect from May 29 until September 4.

Residents may water their lawns on odd numbered days if their address ends in an odd number and on even numbered days if their address ends in an even number.

The sprinkling restriction includes no watering between 10:00 am and 8:00 pm since a significant amount of water is lost due to evaporation during the hottest times of the day. Homeowners with automated systems are strongly encouraged to program their irrigation systems to operate after 10:00 pm. This minimizes evaporation and lessens peak demand on the municipal water system.

The only exception to the sprinkling ban is for new sod or seeded areas. These areas may be watered every day for two weeks to establish root growth, but not between 10:00 am and 8:00 pm.

In addition to the residential sprinkling ban, the city is in the process of implementing an irrigation policy that is specific to townhome, multifamily residential and commercial connections to the municipal water supply requiring that:

- All irrigation systems must have an approved backflow device.
- All irrigation systems must include a rain sensor device to prevent irrigation systems from operating during rain events.

If you have any questions, please contact John Nelson, Utilities Supervisor, at 763-433-9861 or jnelson@ci.ramsey.mn.us.

Cookbooks for a Good Cause

The Youth Ramsey Police Explorer Post is selling cookbooks for $10.00. The cookbooks are a collection of 150 recipes, and all profits go to the Youth Ramsey Police Explorers to help fund their yearly state conference.

If you are interested in a cookbook, or would like to learn more about the Explorer Program, please contact Police Explorer Advisor, Kristin Camacho, at 763-427-6812 or email at kcamacho@ci.ramsey.mn.us.

March/April 2012

City of RAMSEY RESIDENT

Ramsey Business/Environmental Expo & Tree Sale, Saturday, April 28 9:00 am to 2:00 pm

Ramsey Business Expo
The Fountains of Ramsey
7533 Sunwood Dr NW

The public is invited to attend and participate in the city of Ramsey's 4th Annual Business Expo. It's an opportunity for residents and visitors to learn more about our growing businesses and their products and services. The Expo highlights retail, residential contractors, professional services, restaurant/catering, and other businesses located in the Ramsey area. Sample free food products from local vendors. Find that contractor to remodel or upgrade your home. Buy that utensil and jewelry piece that you've been thinking about. Check out unique customized golf carts and much more. Admission for this show is FREE to the general public.

Like last year, the Business Expo will be held at The Fountains of Ramsey Event Center in close proximity to the Environmental Expo. The Fountains is a multi-purpose event center ideal for any event—

Environmental Expo & Tree Sale
Ramsey Municipal Center,
7550 Sunwood Dr NW

The Environmental Expo & Tree Sale event is back with some great new additions this year! First, courtesy of Nikon, national birding expert Mike Freiburg will be leading multiple bird walks (site to be determined) and then will give a presentation at the Municipal Center highlighting some of the many species he's encountered over the years. Residents attending the bird walk(s) should bring their cameras and if you happen to have a Nikon, you'll have the opportunity to explore the world of digiscoping with an optical scope demonstration!

We are also working on including a 'hands-on' activity or two for kids to explore their creative side. As details are finalized, the city's website will be updated, so be sure to check on-line periodically for more information.

The Expo still offers a wide array of exhibitors, as well as live raptors,

Continued on Page 5

Lawn Care and Stormwater Ponds

The city of Ramsey has a number of lakes, stormwater ponds, rivers and wetlands within its boundaries. All runoff, whether natural (rainfall and snow melt) or manmade (lawn watering, car washing or other discharges), enters the pond system through ditches and storm sewers. As the runoff flows over roof tops, pavement, lawns and natural areas, it picks up grass clippings, leaves, animal waste, fertilizers and other chemicals (pollutants) and carries them into the ponds.

Algal blooms (green growth on the surface) occur in ponds when there is excess phosphorus in the water. Phosphorus is found in lawn clippings, leaves, animal waste and fertilizer. State law has banned phosphorus in fertilizer since 2004; however, it is always good to check the label before purchasing any fertilizer. The middle number (P) on the package [N-P-K] should be zero.

What can you do to improve water quality?

- Have your soil tested and follow the recommendations from the test for fertilizer application. Test information is available from the University of Minnesota Extension Service http://soiltest.cfans.umn.edu/, there are also commercial firms that provide soil tests (check the yellow pages).
- Sweep up fertilizer from pavement and sidewalks. Spraying the surface can push the fertilizer into the storm sewer system. Adjust your spreading pattern so that fertilizer is not going directly onto pavement or adjacent waterways.
- Mulch your clippings back into the yard. Doing this consistently is equivalent to one application of fertilizer.
- Sweep leaves and grass clippings off paved surfaces. Do not pile lawn clippings and leaves where water running under them will enter the storm sewer/pond system.
- Wash your car on the lawn, not on the driveway.
- Collect animal waste and place in garbage.
- Create a natural buffer strip adjacent to water features on your property. The native vegetation will filter the water leaving your lawn before it enters the pond. It can also keep geese off your lawn. More information can be found by searching for buffer strip at http://www.extension.umn.edu/
- Properly dispose of used household chemicals through the city recycling day or at the County Hazardous Waste Facility in Blaine.

Incorporating these simple measures in your lawn care program will improve the water quality in your local pond and the waters downstream. Please encourage your neighbors and friends to also try these practices. Please feel free to contact Leonard Linton at 763 433-9834 or llinton@ci.ramsey.mn.us for more information.

Water Conservation

The Lower Rum River Water Management Organization (LRRWMO), which includes all of Ramsey and Anoka, as well as portions of Andover and Coon Rapids, is an organization that seeks to improve and protect lakes, rivers, streams, groundwater and other water sources across municipal boundaries. The LRRWMO member communities are located on the Anoka Sand Plain which, as the name implies, is dominated by mostly sandy soils. Sandy soils have low water holding capacity, so water used to irrigate yards moves down through soil and out of the root zone area quickly. Summer lawn watering, especially on sandy soils, increases the amount of water used per day (for example, in Ramsey, water use almost triples to over 5 million gallons per day! The result is much greater use of non-consumptive water).

As populations continue to grow in the member communities, the demand for water will also grow. Cumulatively, the population of the member communities of the LRRWMO is forecasted to increase by roughly 13,000 people by the year 2020, putting tremendous pressure on the groundwater supply, or aquifer. As demand for water continues to rise, the aquifer, our current source of drinking water, will be depleted more and more. While groundwater is replenished by precipitation, activities such as pumping (wells), increasing impervious surfaces (roads, rooftops, driveways, etc.), and climatic changes alter recharge rates, and potentially diminish the recharge of aquifers. Continued depletion of the aquifers could result in the need for communities to explore alternative options for water, such as drawing from the Mississippi River, which would require the construction of water treatment facility.

Below are just a few examples of quick and easy ideas to reduce water use inside and outside:

- When upgrading appliances, consider air-cooled air conditioners, refrigerators, etc. for significant water savings.
- Upgrade older toilets with low-flush (low-flow) models. If your toilet is older than 1995, you can retrofit it with a tank-based displacement device.
- Check with your city to see about getting FREE dye strips. Put them in your toilet to check for leaks into the toilet bowl. While you're at it, fix that leaky faucet. All those drips add up.
- Insulate hot water pipes for more immediate hot water at the faucet and for energy savings.
- Turn off the water while brushing your teeth or shaving.
- Use a broom rather than a hose to clean your driveway or sidewalk between rain showers. Just sweep the dirt and spread over your lawn or toss in the trash. Doing this will not only conserve water but will also keep the dirt from entering storm sewers and catch basins.
- A sprinkler timer can be set to shut off your sprinkler after a set amount of time.
- Put the water from your downspout to good use by catching it in a mosquito-proof rain barrel. Plants love rainwater because it doesn't contain chlorine and is warmer than tap water.

The city of Ramsey has developed a water conservation tool box that contains information and ideas that can be implemented on residential or commercial properties. The tool box can be found at www.cityoframsey.com/environment-water-conservation.

Snowplowing

The winter season is fast approaching and we all know what that means – Snowplowing! You can find more information on Frequently asked Questions, the Mailbox Replacement Policy, City Policy on Snow Removal, Ice Control and Boulevard Staking on the city website at www.cityoframsey.com

The city of Ramsey also has an after hours snowplow information line at 763-433-9852, which is updated and monitored during the snowplow season. During regular business hours you can contact the Public Works Department directly at 763-433-9820.

City of Coon Rapids 2012 Newsletter articles pertaining to the LRRWMO and water resources.

Get Ready to Cast Your Vote

Election Day is right around the corner on November 6. Do you know where your polling location is? Many changes occurred this year due to redistricting. The Anoka County Elections Office sent postcards in July to all households informing them of their new polling location information, but you can also visit the City's website at www.coonrapidsmn.gov and click on Clerk/Elections to see where you vote. Voter registration cards are available online and at City Hall for anyone not registered or who may have moved since the last election. Pre-registration ended October 16 but you can register at your polling location on Election Day with proper identification. Visit our website at http://www.coonrapidsmn.gov/clerk/votingregistration.htm for more information.

You may vote absentee if you will be absent from your precinct on Election Day, observe Election Day as a religious holiday, serve as an election judge, or are disabled. Voters can vote absentee either by mail, at Anoka County, or at Coon Rapids City Hall by completing an absentee ballot application. Absentee voting for the General Election began on September 21 and ends on November 5. For more information on absentee voting and hours or to obtain an application visit the City's website at www.coonrapidsmn.gov

As a result of the 2010 census and new legislative and congressional redistricting lines, Coon Rapids is no longer divided into two Congressional Districts but is now fully contained within the 3rd Congressional District. In addition, the City is now divided into three State Senate Districts and four State House Districts; 35B, 36A, 36B, and 37A.

In addition to voting for national, state, and local officials, Minnesota voters will also be asked to vote on two constitutional amendments. The first amendment asks you to accept or reject a requirement that all voters present a valid photo identification to vote in Minnesota elections. The second amendment will ask whether marriage in Minnesota be legally defined as a marriage between a man and a woman. A YES vote will mean you are in favor of the amendment; a NO vote or abstention (blank) vote will be counted as against the amendment.

If you have any questions please contact the Clerk's Office at tsaefke@coonrapidsmn.gov or 763-767-6459.

Getting Ready for Snow... Around the City and at Home

/inter is just around the corner, and the City f Coon Rapids asks all residents to be aware of ome important information that can help us all get rough winter.

arbage Cart Placement - City guidelines for sweeping and plowing are "curb to curb." That means, we could use your help when it comes to garbage cart placement, in order the get the streets as clean s possible. Please place your cart two feet behind ie curb, with at least three feet in between your arts. This helps our snow plow drivers plow the treets thoroughly and clean the streets from urb to curb." If the carts are placed in the street, ie plows have to go around them which leaves iat portion of the street incomplete. If you have uestions on cart placement please call 763-767-485.

Remove the Snow from Around Fire Hydrants - This simple act can save valuable time when it comes to fighting a fire. The Fire Department asks that you take a few minutes to clear out the snow from around your nearest fire hydrant. Thanks for your help!

Winter Parking Ban Begins November 1

During the winter parking ban, vehicles cannot be parked on a public street:

- Between the hours of 2:00 a.m. and 6:00 a.m. between November 1 and April 1; or
- Anytime there is a snowfall with three or more inches accumulated on the ground, except where the street has been plowed from curb to curb.

Vehicles in violation will be issued a ticket and may be towed.

Enjoy the Fall Colors but Keep Leaves out of the Street

It's that time of year again... to enjoy the beautiful fall colors, but it's also a time when those leaves turn into a lot of yard work for homeowners.

One option for reducing your workload is to use a mulching lawn mower to mulch leaves into your yard. It is less time intensive than raking and the shredded leaves act as a natural fertilizer during the fall.

While you are tending to your yard, please remember to not rake or blow leaves into the street. You may also want to take a moment to sweep or rake leaves and branches out of the street in front of your house. If leaves are left in the street, they can clog storm drains, contributing to localized flooding. When washed into nearby lakes, rivers and streams via storm drains or ditches, the leaves become a major source of phosphorus, the nutrient that allows algae to bloom in the summer. Dispose of leaves by composting them in your yard, bringing them to the community compost facility, or bag them for curbside pick-up. Please do your part to keep leaves and yard waste out of the regular garbage, our lakes, rivers and streams and never dump them in wetlands or buffer areas – it's illegal!

Pay Your Utility Bill Online!

Have you registered for eUtilityBilling? It's an online system that allows you to handle all of your utility billing needs from the convenience of home. The system allows you to:

- Make payments 24/7 with a credit or debit card
- View your payments and water consumption history
- Sign up to receive electronic bills instead of paper bills

Once registered, you will be able to view your eBilling statements online. A one-time payment can also be made from the log-in page without setting up an account. Sign up today. Visit the City's website at www.coonrapidsmn.gov

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Appendix C:

2012 Water Monitoring and Management Work Results

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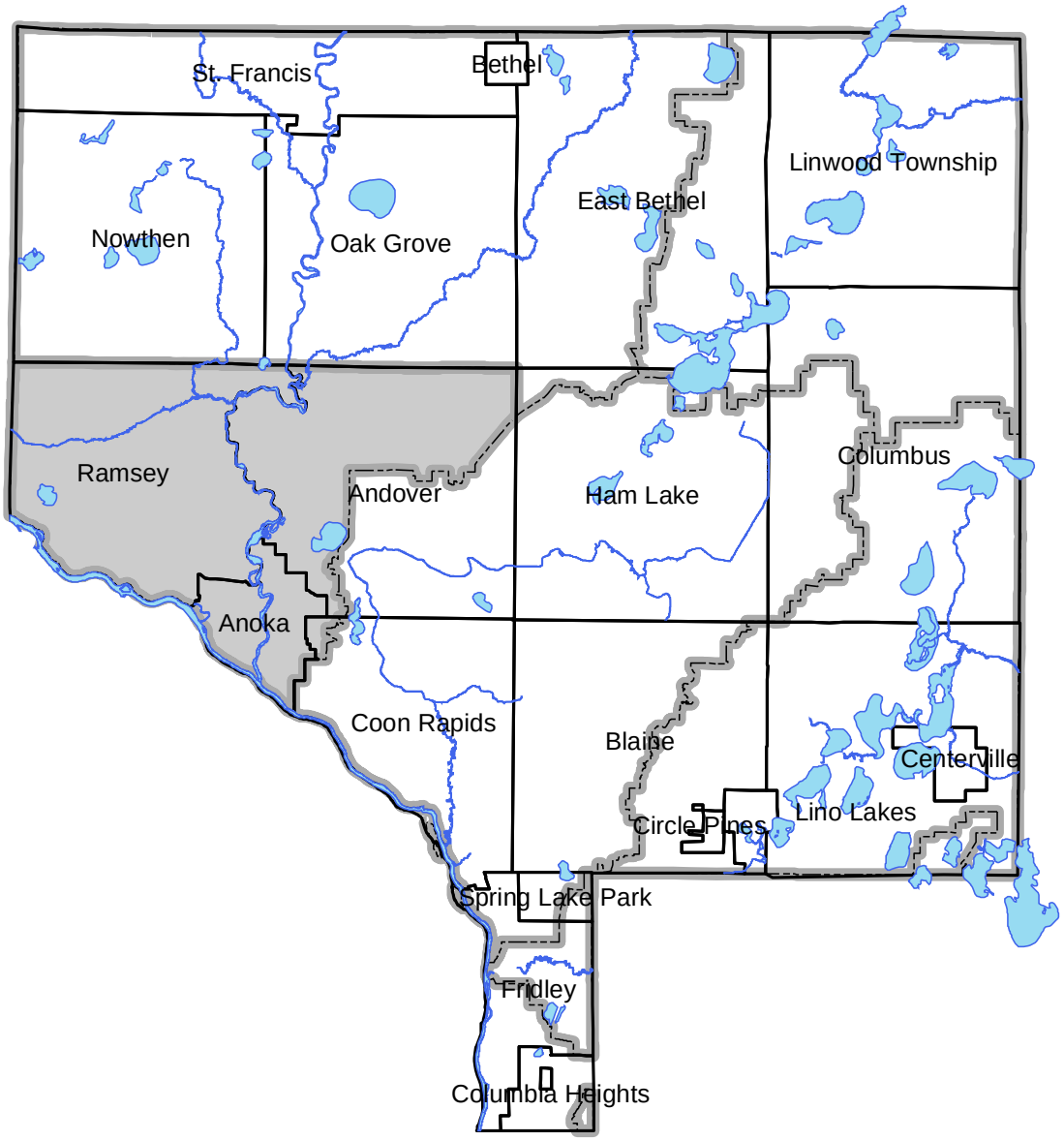
Excerpt from the
2012 Anoka Water Almanac

Chapter 4: Lower Rum River Watershed

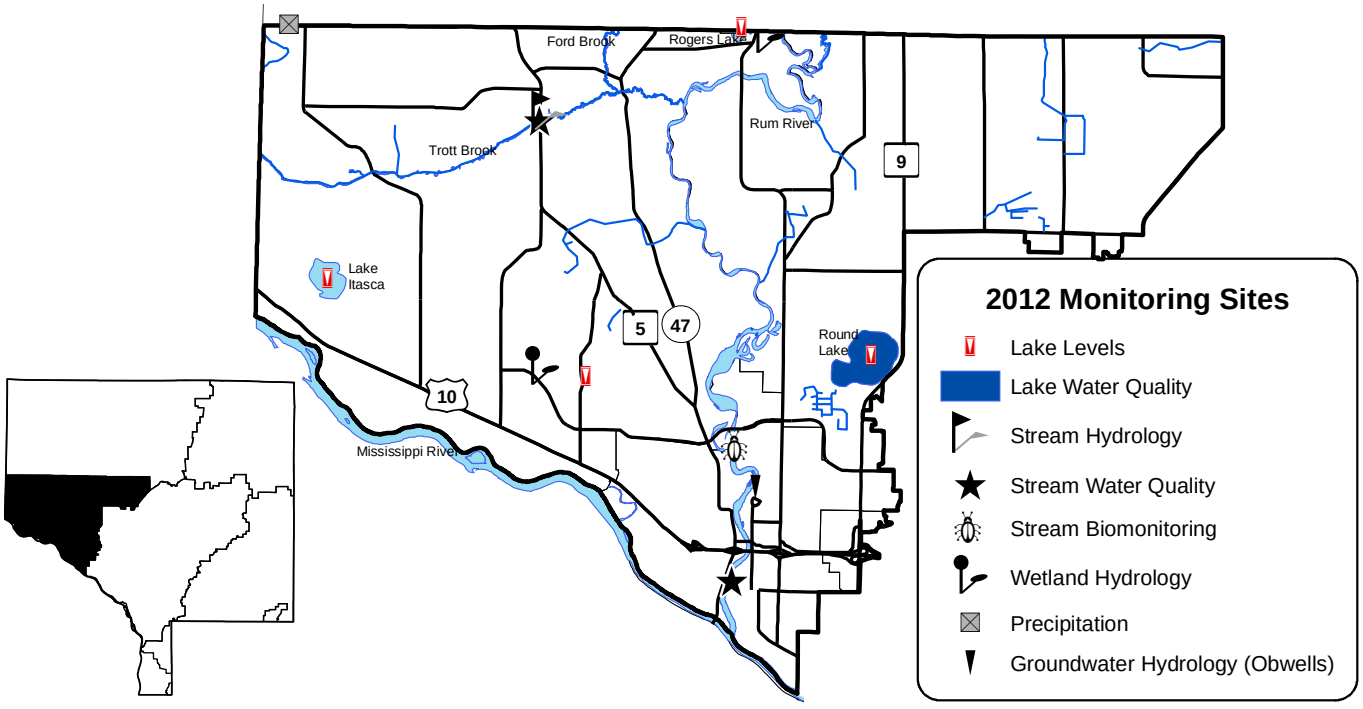


Prepared by the Anoka Conservation District

CHAPTER 4:
LOWER RUM RIVER WATERSHED

Task	Partners	Page
Lake Levels	LRRWMO, ACD, volunteers, MN DNR	4-106
Lake Water Quality	LRRWMO, ACD, ACAP	4-108
Stream Water Quality – Chemical	LRRWMO, ACD	4-112
Stream Water Quality – Biological	LRRWMO, ACD, ACAP, Anoka High School	4-119
Stream Hydrology	LRRWMO, ACD	4-122
Stream Rating Curves	LRRWMO, ACD	4-124
Wetland Hydrology	LRRWMO, ACD	4-125
Water Quality Grant Fund	LRRWMO, ACD, landowners	4-128
Public Education - Web Video	LRRWMO, ACD	4-129
Review Member Community Local Water Plans	LRRWMO, ACD	4-129
LRRWMO Website	LRRWMO, ACD	4-130
Financial Summary		4-131
Recommendations		4-131
Groundwater Hydrology (obwells)	ACD, MNDNR	Chapter 1
Precipitation	ACD, volunteers	Chapter 1

ACAP = Anoka County Ag Preserves, ACD = Anoka Conservation District, LRRWMO = Lower Rum River Watershed Mgmt Org, MC = Metropolitan Council, MNDNR = MN Dept. of Natural Resources



Lake Level Monitoring

Description: Weekly water level monitoring in lakes. The past five years are shown below, and all historic data are available on the Minnesota DNR website using the "LakeFinder" feature (www.dnr.mn.us.state\lakefind\index.html).

Purpose: To understand lake hydrology, including the impact of climate or other water budget changes. These data are useful for regulatory, building/development, and lake management decisions.

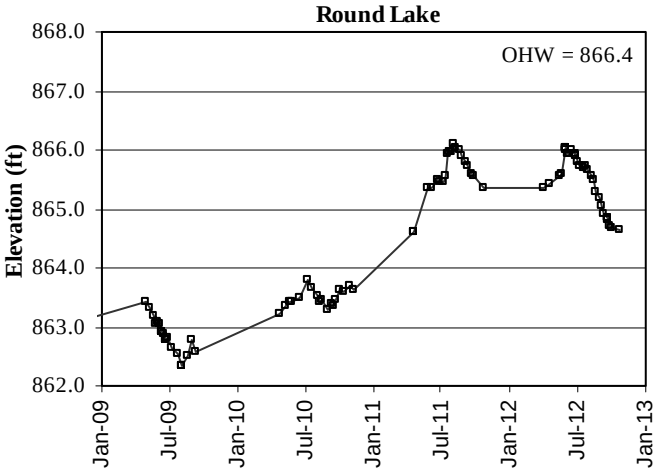
Locations: Itasca, Round, Rogers, and Sunfish/Grass Lakes

Results: Lake levels were measured by volunteers throughout the 2012 open water season. Lake gauges were installed and surveyed by the Anoka Conservation District and MN DNR. Lakes had sharply increasing water levels in spring and early summer 2012 when heavy rainfall totals occurred. Little rainfall fell later in the year and lake levels fell dramatically.

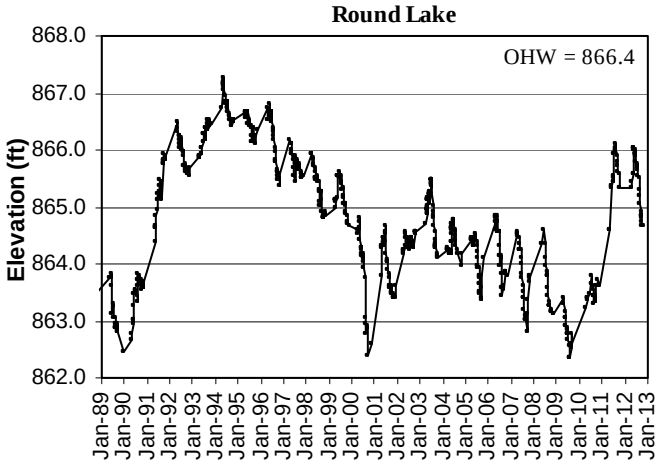
All lake level data can be downloaded from the MN DNR website's Lakefinder feature. Ordinary High Water Level (OHW), the elevation below which a DNR permit is needed to perform work, is listed for each lake on the corresponding graphs below.

In 2012 Sunfish/Grass Lake water levels were measured infrequently. The volunteer for this lake has been asked to take more readings in the future or provide notice that they cannot so another volunteer can be found.

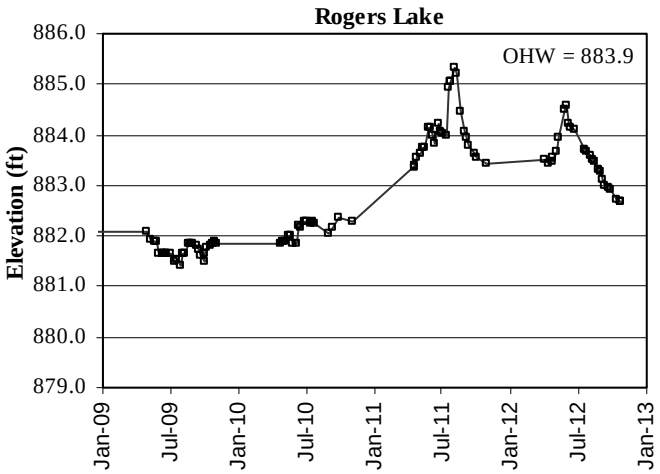
Round Lake Levels – last 5 years



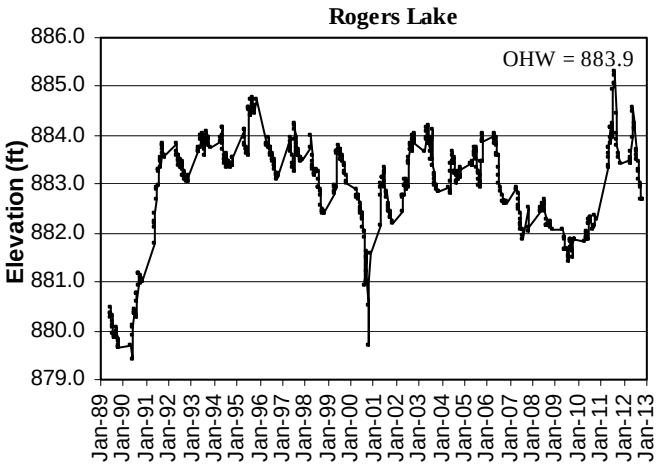
Round Lake Levels – last 24 years



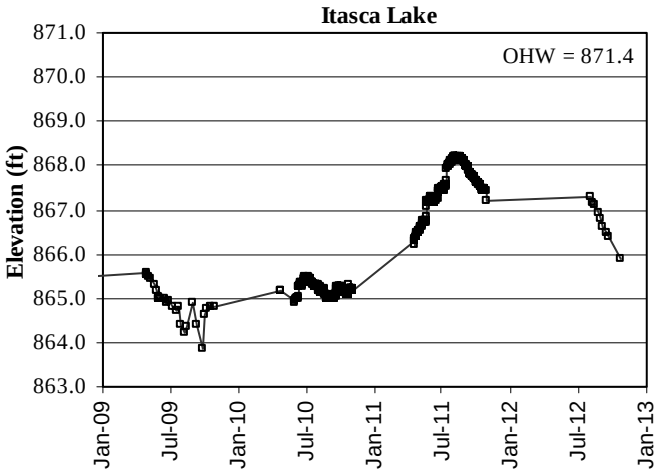
Rogers Lake Levels – last 5 years



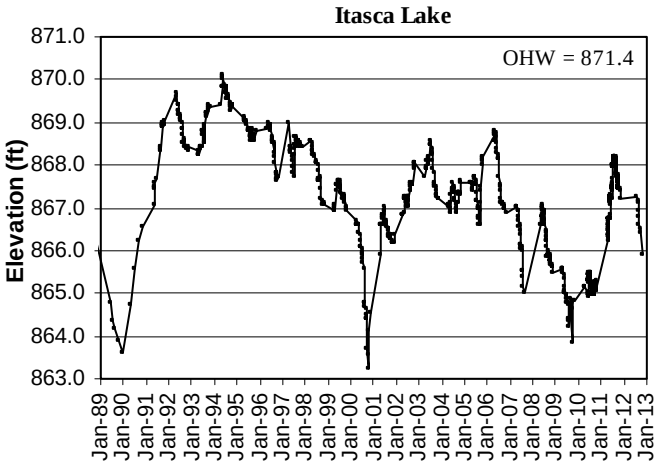
Rogers Lake Levels – last 24 years



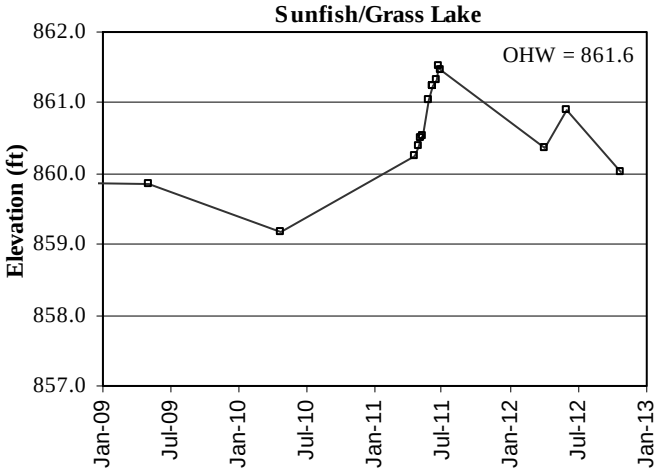
Itasca Lake Levels – last 5 years



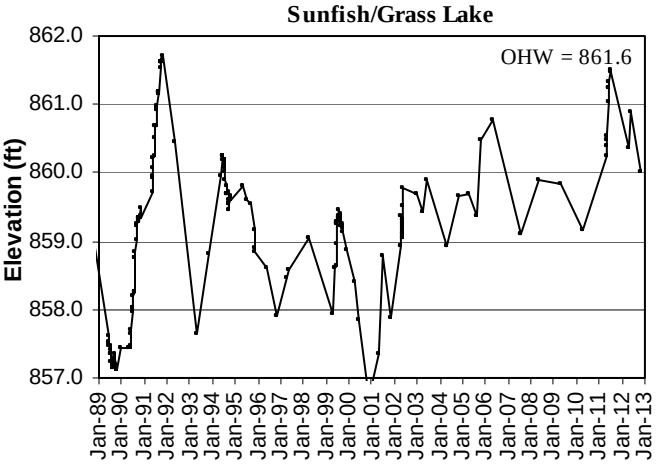
Itasca Lake Levels – last 24 years



Sunfish/Grass Lake Levels – last 5 years



Sunfish/Grass Lake Levels – last 24 years



Lake Water Quality

Description: May through September every-other-week monitoring of the following parameters: total phosphorus, chlorophyll-a, secchi transparency, dissolved oxygen, turbidity, temperature, conductivity, pH, and salinity.

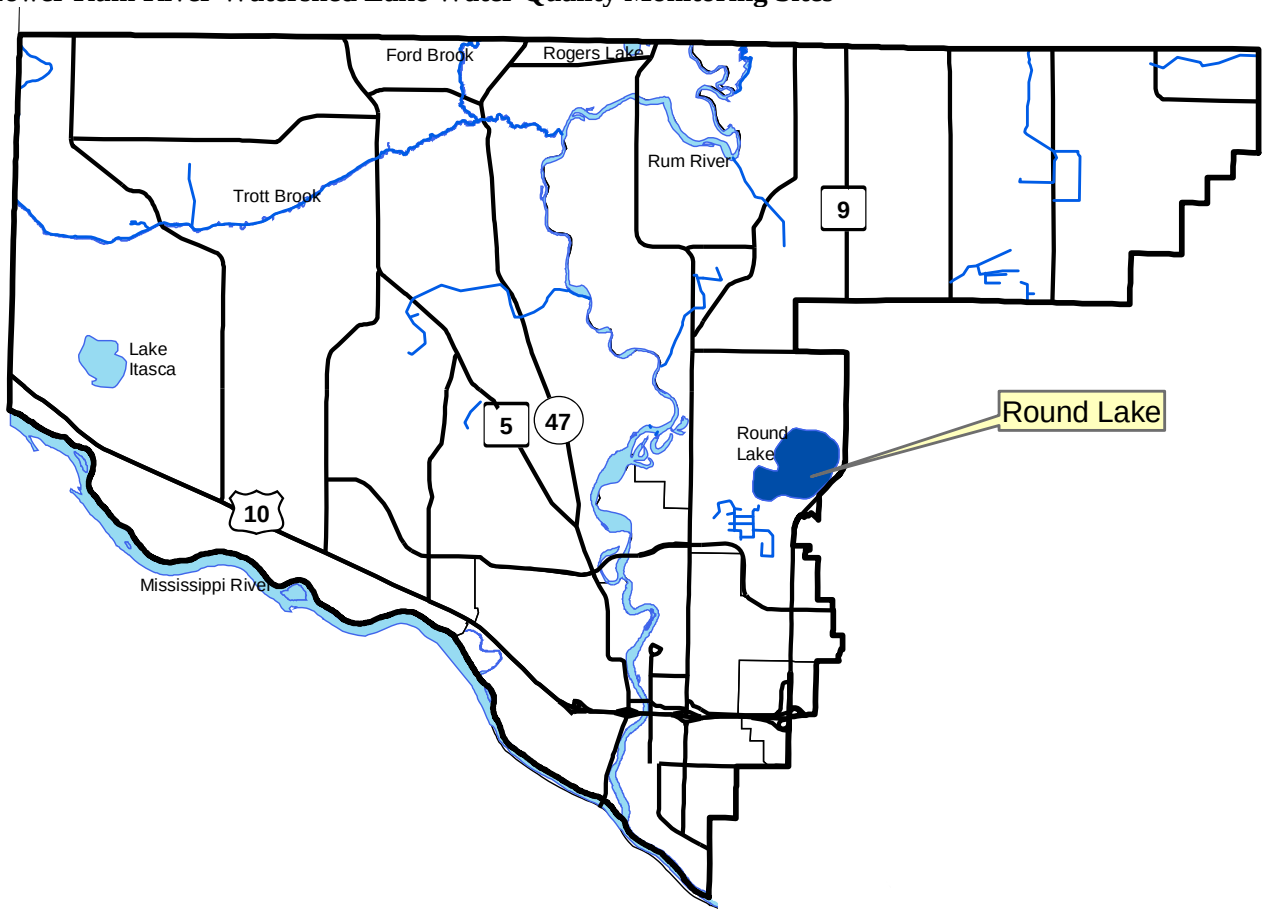
Purpose: To detect water quality trends and diagnose the cause of changes.

Locations: Round Lake

Results: Detailed data for each lake are provided on the following pages, including summaries of historical conditions and trend analysis. Previous years' data are available from the ACD. Refer to Chapter 1 for additional information on interpreting the data and on lake dynamics.

Originally, Sunfish/Grass Lake was also to be monitored in 2012. After discovery that the local community college was monitoring it was dropped.

Lower Rum River Watershed Lake Water Quality Monitoring Sites



Round Lake

City of Andover, Lake ID # 03-0089

Background

Round Lake is located in southwest Anoka County. It has a surface area of 220 acres and maximum depth of 19 feet, though the majority of the lake is less than 4 feet deep. The lake is surrounded by cattails and has submerged vegetation interspersed throughout the basin. This lake has a small watershed, with a watershed to surface area ratio of less than 10:1. Public access is from a dirt ramp on the lake's southeast side. Almost no boating and mostly wintertime fishing occurs. Wildlife, especially waterfowl, usage of the lake is relatively high.

2012 Results

In 2012 Round Lake's water quality was very good compared with other lakes in this region (NCHF Ecoregion) receiving an overall A letter grade. Average total phosphorus was the lowest on record (19.0 ug/L) and chlorophyll *a* was only slightly higher than the lowest recorded value from 2003. Secchi transparency was 11.4 feet, which is the best ever observed at this lake.

Phosphorus and algae was highest in early spring. The first water sample taken in mid-May had much higher levels of TP and chlorophyll *a* than subsequent samples. This could be the result of a very mild winter with little snow cover (more light penetration) and early ice out.

Trend Analysis

Nine years of water quality monitoring have been conducted by the Anoka Conservation District (1998-2000, 2003, 2005, 2007, and 2009-2010, 20012), which is a marginal number of years for a powerful statistical test of trend analysis. In 2010, the results of the analysis indicated a significant trend of declining water quality across the years studied (repeated measures MANOVA with response variables TP, Cl-a, and Secchi depth, $F_{2,5}$ = 9.6065, p = 0.0194). When the analysis is run to include the exceptional water quality observed in 2012 no significant water quality changes are apparent ($F_{2,6}$ = 0.66, p = 0.29).

Discussion

2012 was a welcome return to good water quality for Round Lake. There was growing concern about a trend toward poorer water quality. Phosphorus and chlorophyll-a had increased substantially in each of four monitored years from 2005-2009, and 2010 was similar to 2009. These were years of low lake levels. There was speculation that in-lake sources of nutrients, driven by sediment mixing, were a source of phosphorus. During low water there is more wind mixing because of shallow water depths, and in these years there was also a conspicuous reduction of chara (a plant-like algae) carpeting the bottom. In 2012 water levels recovered substantially in spring, chara was once again blanketing the lake bottom, and water quality was dramatically improved. It does seem that low water levels in Round Lake lead to poorer water quality. Additional monitoring in the future can help verify.

Since at least the 1980's there have been complaints about low water in Round Lake. The lake has few surface water in-flows, so groundwater is important to lake hydrology. There have been concerns that local surficial groundwater levels, and hence the lake, are negatively impacted by a variety of causes including irrigation, residential groundwater use, stormwater management, road embankments, and others. Each has been studied by groups including the MN DNR, Anoka Conservation District, Watershed Organizations, and City. None have been found to cause lower-than-expected lake levels. But there is evidence that Round Lake levels do behave differently from other nearby lakes. Moreover, studies by the Metropolitan Council and others have found regional surficial water tables are being drawn down by groundwater pumping thorughout the metro. Several lakes, including Round and Bunker Lakes are believed to be victims of this groundwater overuse.

Conservation of groundwater must become a regional and local priority, least there will be negative impacts on lakes. In fact many negative impacts are already being documented. At Round Lake, where water quality appears linked to water levels, this issue is very important.

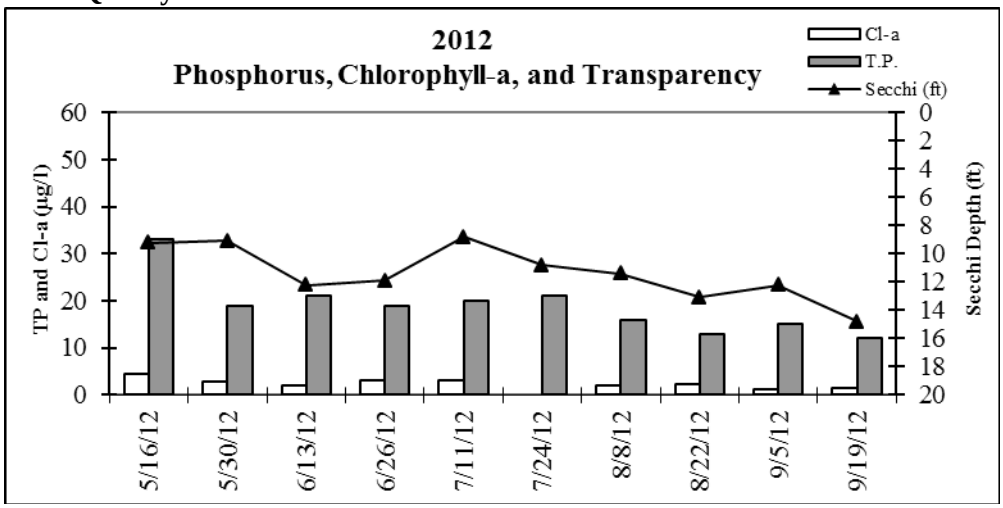
2012 Round Lake Water Quality Data

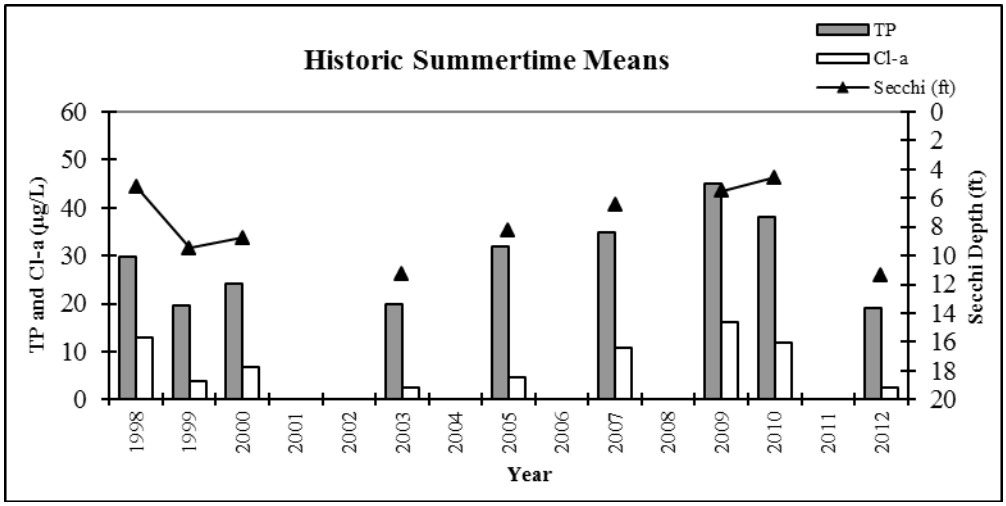
Round Lake
2012 Water Quality Data

		Date	5/16/2012	5/30/2012	6/13/2012	6/26/2012	7/11/2012	7/24/2012	8/8/2012	8/22/2012	9/5/2012	9/19/2012			
		Time	13:50	13:20	14:00	14:25	15:00	14:00	14:35	13:45	13:10	13:00			
	Units	R.L.*	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Average	Min	Max
pH		0.1	8.32	8.14	8.30	8.51	8.34	8.12	8.25	8.41	8.38	8.21	8.30	8.12	8.51
Conductivity	mS/cm	0.01	0.354	0.308	0.286	0.267	0.230	0.214	0.291	0.280	0.266	0.242	0.274	0.214	0.354
Turbidity	FNRU	1.0	3	2	1	4	4	1	1	2	2	1	2	1	4
D.O.	mg/L	0.01	9.60	8.88	10.48				9.06	10.96	8.80	8.69	9.50	8.69	10.96
D.O.	%	1.0	106	90	105				111	128	107	88	105	88	128
Temp.	°C	0.10	21.1	18.7	21.7	24.8	29.4	27.9	25.7	22.7	25.0	16.3	23.3	16.3	29.4
Temp.	°F	0.10	70.0	65.7	71.1	76.6	84.9	82.2	78.3	72.9	77.0	61.3	74.0	61.3	84.9
Salinity	%	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.01
Cl-a	µg/L	1.0	4.6	2.8	1.9	3.1	3.1	<1	2.1	2.2	1.1	1.5	2.5	1.1	4.6
T.P.	mg/L	0.005	0.033	0.019	0.021	0.019	0.020	0.021	0.016	0.013	0.015	0.012	0.019	0.012	0.033
T.P.	µg/L	5	33	19	21	19	20	21	16	13	15	12	19	12	33
Secchi	ft	0.1	9.2	9.1	12.2	11.9	8.8	10.8	11.4	13.1	12.2	14.8	11.4	8.8	14.8
Secchi	m	0.1	2.8	2.8	3.7	3.6	2.7	3.3	3.5	4.0	3.7	4.5	3.5	2.7	4.5
Physical			1	1.0	1.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	1.4	1.0	2.0
Recreational			1	1.0	1.0	1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.2	1.0	2.0

*Reporting Limit

Round Lake Water Quality Results





Round Lake Summertime Historic Mean

Agency	ACD	ACD	ACD	ACD	ACD	ACD	ACD	ACD	ACD
Year	1998	1999	2000	2003	2005	2007	2009	2010	2012
TP (µg/L)	29.8	19.6	24.1	20.0	32.0	34.7	45.0	38.0	19.0
Cl-a (µg/L)	12.8	3.7	6.9	2.4	4.6	10.9	16.2	11.8	2.5
Secchi (m)	1.6	2.9	2.7	3.4	2.5	2.0	1.7	1.4	3.5
Secchi (ft)	5.2	9.5	8.8	11.3	8.3	6.5	5.5	4.6	11.4

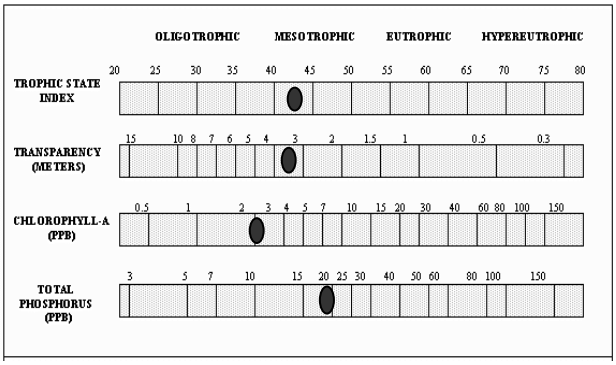
Carlson's Tropic State Indices

Year	1998	1999	2000	2003	2005	2007	2009	2010	2012
TSIP	53	47	50	47	54	55	59	57	47
TSIC	56	44	48	39	46	54	58	55	40
TSIS	55	45	46	42	47	50	52	55	42
TSI	55	45	48	43	49	53	56	56	43

Round Lake Water Quality Report Card

Year	1998	1999	2000	2003	2005	2007	2009	2010	2012
TP (µg/L)	B	A	B	A	B	C	C	C	A
Cl-a (µg/L)	B	A	A	A	A	B+	B	B	A
Secchi (m)	C	B	B	A	B	C	C	C	A-
Overall	**B**	**A**	**B**	**A**	**B**	**C**	**C**	**C**	**A**

Carlson's Trophic State Index



Stream Water Quality - Chemical Monitoring

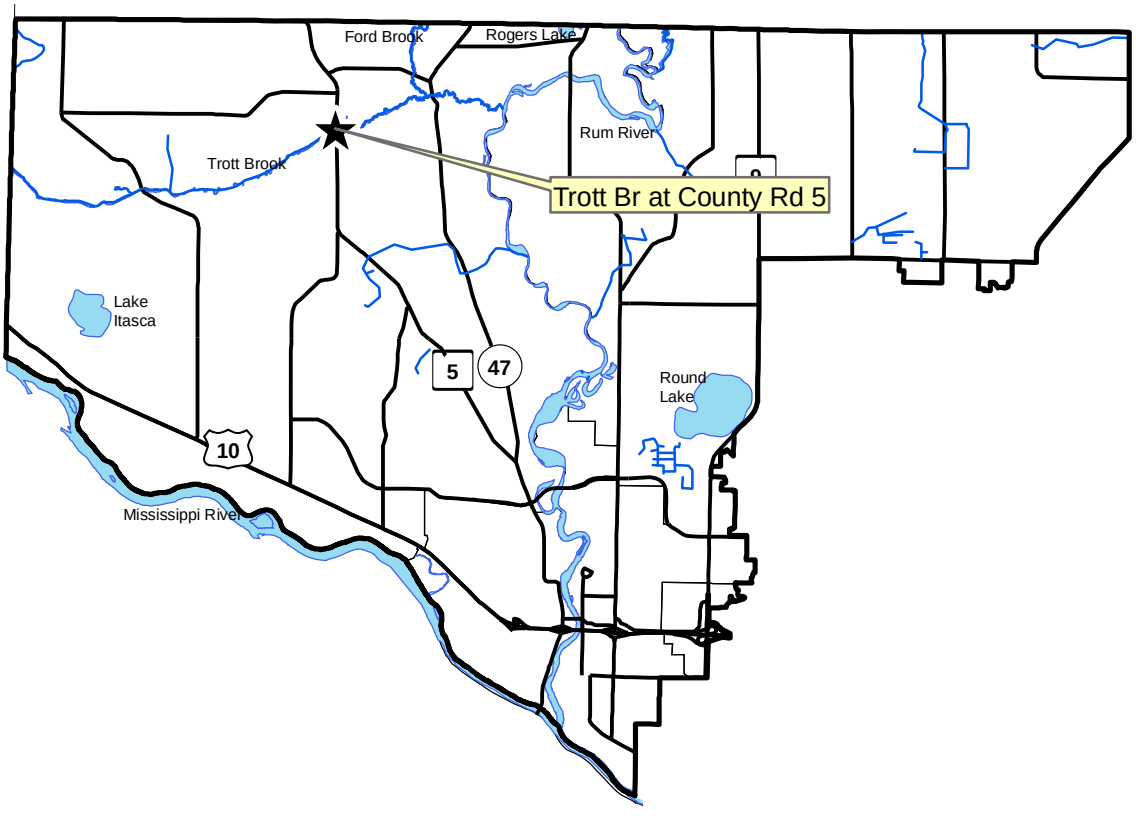
Description: The Rum River has been monitored simultaneously at three strategic locations in 2004, 2009, 2010, and 2011. The locations include the approximate top and bottom of the Upper and Lower Rum River Watershed Management Organizations. The two organizations share the middle location. The Metropolitan Council collects additional data at the farthest downstream location. Collectively, the data collected allow for an upstream to downstream water quality comparison within Anoka County, as well as within each watershed organization. While other Rum River monitoring has occurred, it is excluded from this report in order to include only data that were collected simultaneously for the greatest comparative value.

Purpose: To detect water quality trends and problems, and diagnose the source of problems.

Locations: Trott Brook at County Road 5

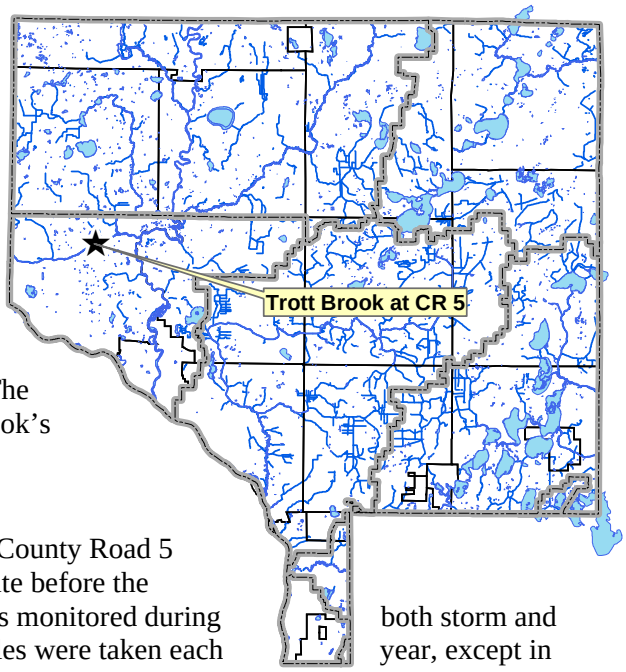
Results: Results are presented on the following pages.
Results from the Metropolitan Council's monitoring station on the Rum River at the Anoka Dam can be obtained from the Metropolitan Council (see http://www.metrocouncil.org/Environment/RiversLakes/).

2012 Rum River Monitoring Sites



TROTT BROOK

Trott Brook at Co. Rd. 5, Ramsey STORET SiteID = S003-176



Years Monitored

Trott at Co. Rd. 5 1998, 2003, 2006, 2012

Background

Trott Brook is a medium-sized creek that flows south through Sherburne County, paralleling the Anoka-Sherburne County boundary before turning east through the City of Ramsey where outlets to the Rum River. Overall, the watershed is rural or suburban residential, and areas within the watershed are undergoing rapid development. The creek is about 25 feet wide and 2.5 feet deep at the monitoring site during baseflow. The monitoring site is approximately one mile upstream of Trott Brook's confluence with Ford Brook.

Methods

In 1998, 2003, 2006 and 2012 monitoring was conducted at the County Road 5 crossing. This is the farthest-downstream, publicly-accessible site before the confluence with Ford Brook or the Rum River. The stream was monitored during both storm and baseflow conditions by grab samples. Eight water quality samples were taken each year, except in 1998 when only four samples were taken. Half of samples were during baseflow and half following storms. Storms were generally defined as one-inch or more of rainfall in 24 hours or a significant snowmelt event combined with rainfall. In some years, particularly the drought year of 2009, smaller storms were sampled because of a lack of larger storms. All storms sampled were significant runoff events.

Parameters tested with portable meters included pH, conductivity, turbidity, temperature, salinity, and dissolved oxygen. Parameters tested by water samples sent to a state-certified lab included total phosphorus, total suspended solids, and chlorides. Lab analyses of sulfates and hardness were added in 2012 because these parameters can affect chloride toxicity. During every sampling the water level (stage) was recorded. Continuous water levels were also recorded throughout the 2012 open water season. In 2012 a rating curve was developed for the site, allowing flow to be calculated from the water levels.

All data from monitoring is held in the MN Pollution Control Agency's EQuIS database, which is available through their website. That raw data includes more information that is presented in this report, including the field crew's notes. The raw data is also available from the Anoka Conservation District.

Results and Discussion

Trott Brook water quality is generally good except for low dissovled oxygen. Summarized water quality results include:

- Dissolved pollutants, as measured by conductivity and chlorides, are within the typical range for streams in the area and well below the state chloride standard.
- Phosphorus was low during baseflow and higher during storms. Fourteen of 28 (50%) of samples exceeded 100 ug/L. All but one of these were during storms. Presently there is no state water quality standard for phosphorus in streams, however a standard around 100 ug/L is likely to be adopted soon. Trott Brook might exceed that new standard when it is adopted.
- Suspended solids and turbidity were low during all condtions.

- pH was within the range considered normal and healthy for streams in this area.
- Dissolved oxygen (DO) dips below the state water quality standard routinely. Over all conditions in the last 10 years, eight of 22 measurements (36%) were below the state water quality threshold of 5 mg/L. Based on this information, Trott Brook does not meet state water quality standards for dissolved oxygen, however the state has not yet listed it as such. Additional monitoring with deployable equipment that records around-the-clock DO levels would be the next step to verify this condition.

In 2013-14 the MPCA and local partners will be doing additional monitoring as part of the Rum River Watershed Restoration and Protection Plan project. That monitoring will include the parameters discussed in this report, several other chemcial parameters, and fish and/or invertebrates. If Trott Brook if found to be impaired for any parameter at that time a Total Maximum Daily Load (TMDL) study will be completed. That study will determine pollutant reductions needed to meet water quality standards and likely means to meet those reductions. An implementation plan will be prepared to identify projects to address the water quality problems. It will largely fall to local entities, such as the Anoka Conservation District and Lower Rum River WMO, to install these projects.

Conductivity and chlorides

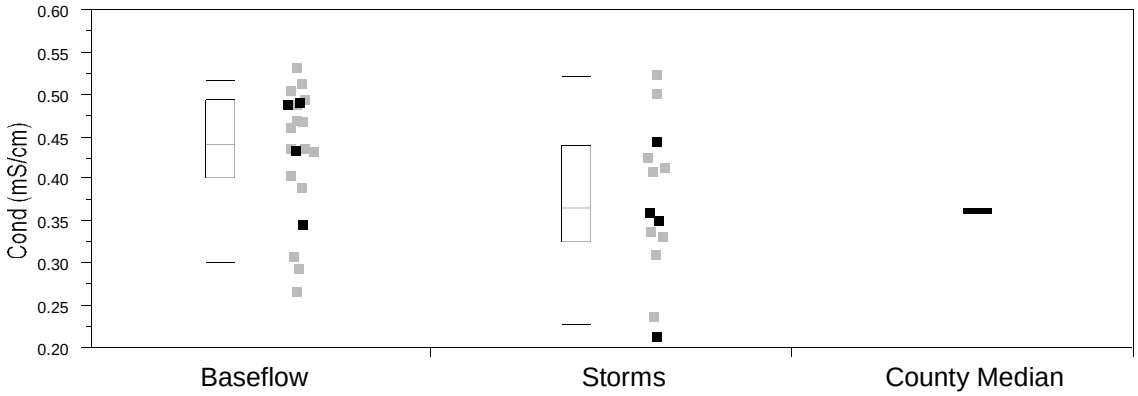
Conductivity and chlorides are measures of dissolved pollutants. Dissolved pollutant sources include urban road runoff, industrial chemicals, and others. Metals, hydrocarbons, road salts, and others are often of concern in a suburban environment. Conductivity is the broadest measure of dissolved pollutants we used. It measures electrical conductivity of the water; pure water with no dissolved constituents has zero conductivity. Chlorides is a test for chloride salts, the most common of which are road de-icing chemicals. Chlorides can also be present in other pollutant sources, such as wastewater. Dissolved pollutants are of greatest concern because of the effect they can have on the stream's biological community. They can also be of concern because Trott Brook is upstream from the Twin Cities drinking water intakes on the Mississippi River.

Conductivity and chlorides in Trott Brook are within the acceptable range, and similar to other nearby streams. The median for both parameters is nearly identical for the median of all monitored streams in Anoka County. The median conductivity for Trott Brook was 0.440 mS/cm; for all streams in Anoka County it is 0.362 mS/cm. The median chlorides for Trott Brook was 19 mg/L; for all streams in Anoka County it is 17 mg/L. The highest observed chloride concentration was 30 mg/L, though higher levels may have occurred during snowmelts which were not monitored. The levels observed are much lower than the Minnesota Pollution Control Agency's (MPCA) chronic standard for aquatic life of 230 mg/L.

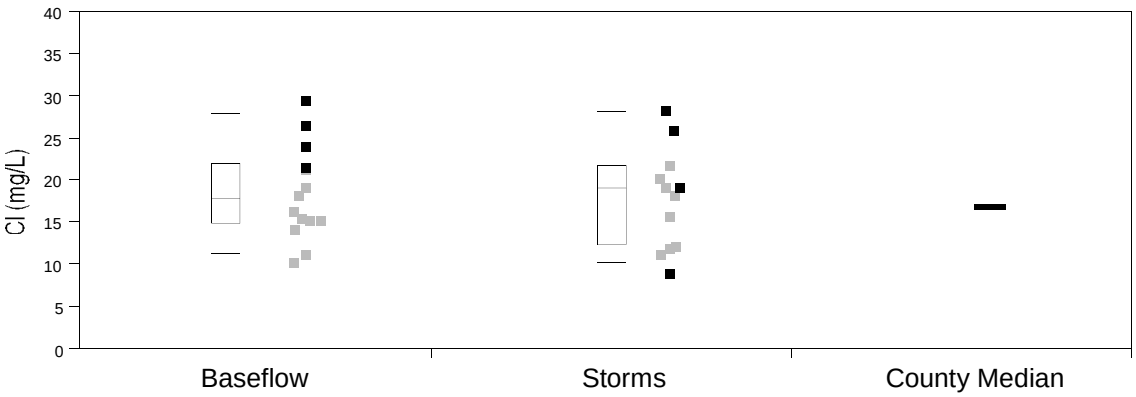
Conductivity and chlorides were similar during storms and baseflow. If runoff were the only source, we would expect these parameters to be highest during storms. An well-documented reason dissolved pollutants are elevated during baseflow too is because of road deicing salt infiltration into the shallow groundwater.

Hardness and sulfate in the water affect the toxicity of chlorides so these parameters were measured in 2012. The State of Iowa has developed equations to adjust the maximum allowable chlorides based upon sulfates and hardness. Minnesota is considering the same approach. Because Trott Brook chlorides are far lower than state standards, the effect of sulfates and hardness is of minimal interst and not investigated.

Conductivity during baseflow and storm conditions Black squares are individual readings from 2012. Grey squares are individual readings from previous years. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).



Chloride during baseflow and storm conditions Black squares are individual readings from 2012. Grey squares are individual readings from previous years. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).

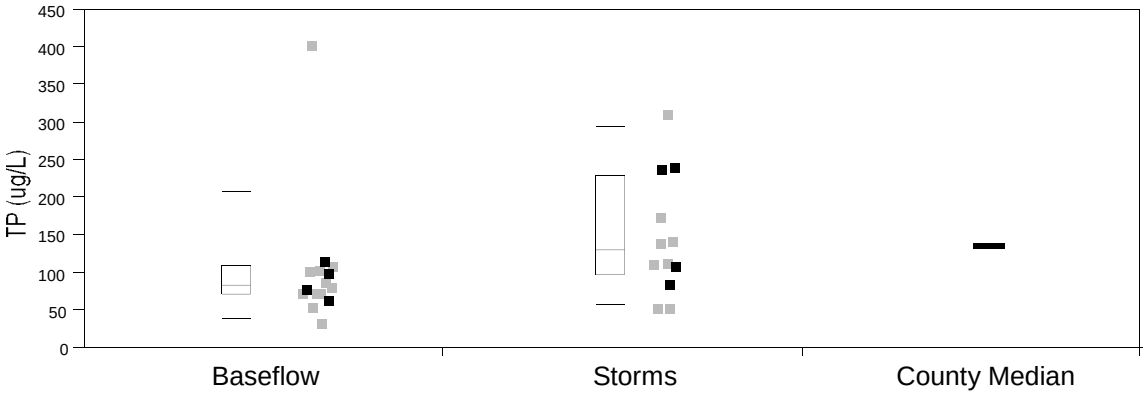


Total Phosphorus

Total phosphorus , a nutrient, is one of the most common pollutants in our region, and can be associated with urban runoff, agricultural runoff, wastewater, and many other sources.

Total phosphorus concentrations in Trott Brook were acceptable during baseflow but more variable and sometimes high during storms. The median phosphorus for Anoka County streams is 135 *u*g/L. There is no state water quality standard for this parameter in streams, however one is likely to be adpoted soon at around 130 *u*g/L. In Trott Brook the median phosphorus during baseflow was 84 *ug/L*, which is desirable. The median phoshorus during storms was 131 *u*g/L but ranged from 56 *u*g/L to 316 *u*g/L. Across all samples, seven of 28 (25%) of measurements were greater than 130 *u*g/L; all but one were during storms. In all, phosphorus in Trott Brook is flirting with unacceptably high levels and should be an area of pollution control effort as the watershed urbanizes.

Total phosphorus during baseflow and storm conditions Black squares are individual readings from 2012. Grey squares are individual readings from previous years. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).



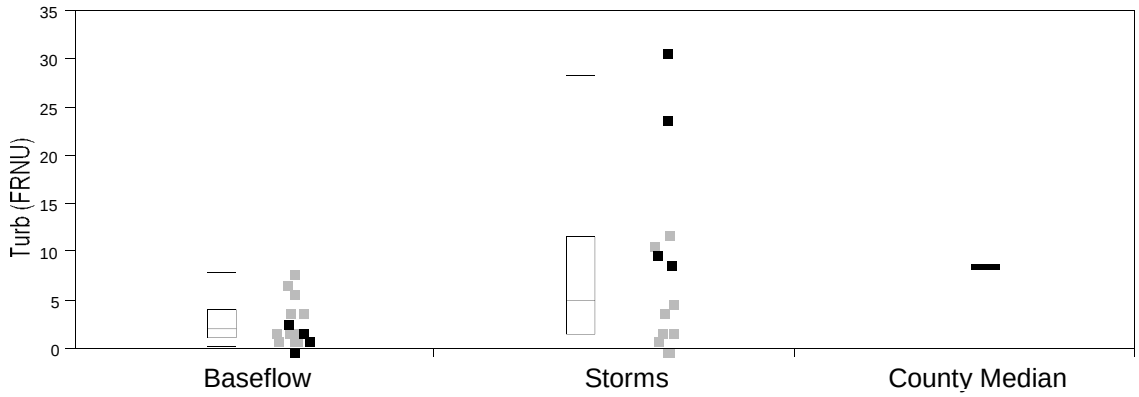
Turbidity and Total Suspended Solids (TSS)

Turbidity and total suspended solids (TSS) are two different measurements of solid material suspended in the water. Turbidity is measured by refraction of a light beam passed through a water sample. It is most sensitive to large particles. Total suspended solids is measured by filtering solids from a water sample and weighing the filtered material. The amount of suspended material is important because it affects transparency and aquatic life, and because many other pollutants are attached to particles. Many stormwater treatment practices such as street sweeping, sumps, and stormwater settling ponds target sediment and attached pollutants.

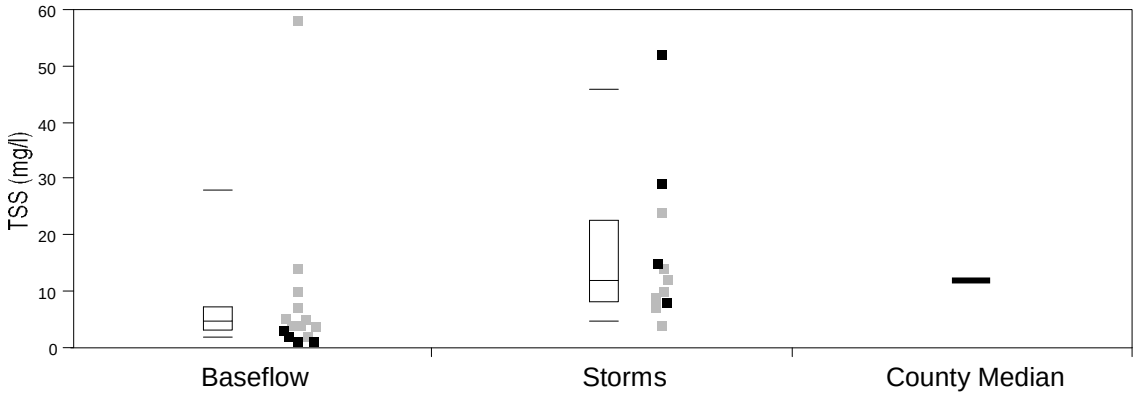
Turbidity in Trott Brook is acceptably low. The current state water quality threshold for turbidity is 25 NTU. If a stream exceeds this value on three occassions and at least 10% of all sampling events, then it is declared impaired for turbidity (20 sample minimum). Trott Brook turibity exceeded 25 NTU only once of 33 measurements. Tubidity was higher during storms (median 5 NTU, range 0-31) than during baseflow (median 2 NTU, range 0-8).

Total suspended solids (TSS) are also acceptably low in Trott Brook. Presently TSS is only used in state water quality standards as a surrogate for turbidity when little turbidity data exists. The threshold is 100 mg/L. In the future the MPCA plans to switch to using TSS for the water quality standard. In Trott Brook the median of all TSS measurements was only 7 mg/L. During baseflow (median 5 mg/L) TSS was lower than during storms (median 12 mg/L). The maximum observed during any conditions was 59 mg/L.

Turbidity during baseflow and storm conditions Black squares are individual readings from 2012. Grey squares are individual readings from previous years. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).



Total suspended solids during baseflow and storm conditions Black squares are individual readings from 2012. Grey squares are individual readings from previous years. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).



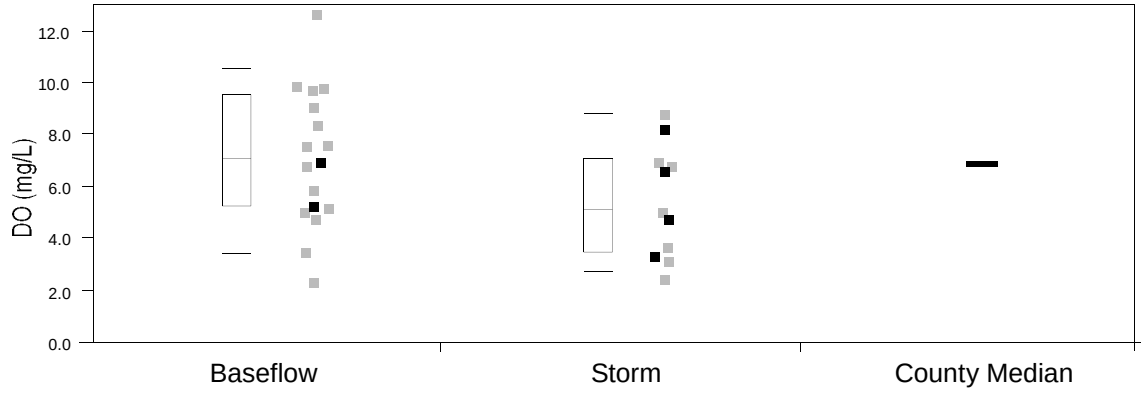
Dissolved Oxygen

Dissolved oxygen is necessary for aquatic life, including fish. Organic pollution consumes oxygen when it decomposes. If oxygen levels fall below 5 mg/L aquatic life begins to suffer, therefore the state water quality standard is a daily minimum of 5 mg/L. The stream is impaired if 10% of observations are below this level in the last 10 years. Dissolved oxygen levels are typically lowest in the early morning because of decomposition consuming oxygen at night without offsetting oxygen production by photosynthesis.

In Trott Brook dissolved oxygen (DO) dips below the state water quality standard routinely. The median DO during baseflow was 7.16 mg/L but during storms was just 5.19 mg/L. Readings below 5 mg/L were observed in all of the four monitored years except 1998. In 1998 the lowest observed DO was 5.36 mg/L. Over all conditions in the last 10 years, eight of 22 measurements (36%) were below 5 mg/L. Based on this information, Trott Brook does not meet state water quality standards for dissolved oxygen although it has not yet been declared "impaired." Additional monitoring with deployable equipment that record aroun-the-clock DO levels would be the next step to verify this condition.

The most common reason for low oxygen is high levels of organic material. Decomposition of these materials consumes oxygen. Trott Brook and its ditch tributaries flow through expanses of wetland where organic soils dominate. Decomposition in those wetlands could contribute to the low stream DO. The relatively low suspended solids and phosphorus in the stream suggest that direct discharges of organic materials into the stream are not a significant cause of low DO.

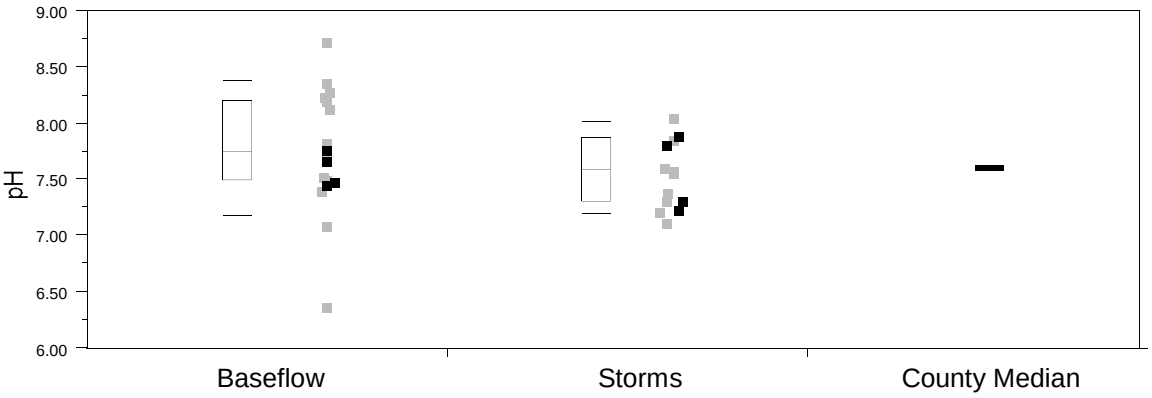
Dissolved oxygen during baseflow and storm conditions Black squares are individual readings from 2012. Grey squares are individual readings from previous years. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).



pH

pH refers to the acidity of the water. The Minnesota Pollution Control Agency's water quality standard is for pH to be between 6.5 and 8.5. All pH measurements at Trott Brook have been within this range. No concerns have been noted.

pH during baseflow and storm conditions Black squares are individual readings from 2012. Grey squares are individual readings from previous years. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).



Stream Water Quality – Biological Monitoring

Description: This program combines environmental education and stream monitoring. Under the supervision of ACD staff, high school science classes collect aquatic macroinvertebrates from a stream, identify their catch to the family level, and use the resulting numbers to gauge water and habitat quality. These methods are based upon the knowledge that different families of macroinvertebrates have different water and habitat quality requirements. The families collectively known as EPT (Ephemeroptera, or mayflies; Plecoptera, or stoneflies; and Trichoptera, or caddisflies) are pollution intolerant. Other families can thrive in low quality water. Therefore, a census of stream macroinvertebrates yields information about stream health.

Purpose: To assess stream quality, both independently as well as by supplementing chemical data.
To provide an environmental education service to the community.

Locations: Rum River behind Anoka High School, south side of Bunker Lake Blvd, Anoka

Results: Results for each site are detailed on the following pages.

Tips for Data Interpretation

Consider all biological indices of water quality together rather than looking at each alone, because each gives only a partial picture of stream condition. Compare the numbers to county-wide averages. This gives some sense of what might be expected for streams in a similar landscape, but does not necessarily reflect what might be expected of a minimally impacted stream. Some key numbers to look for include:

Families — Number of invertebrate families. Higher values indicate better quality.

EPT — Number of families of the generally pollution-intolerant orders Ephemeroptera (mayflies), Plecoptera (stoneflies), Trichoptera (caddisflies). Higher numbers indicate better stream quality.

Family Biotic Index (FBI) — An index that utilizes known pollution tolerances for each family. Lower numbers indicate better stream quality.

FBI	Stream Quality Evaluation
0.00-3.75	Excellent
3.76-4.25	Very Good
4.26-5.00	Good
5.01-5.75	Fair
5.76-6.50	Fairly Poor
6.51-7.25	Poor
7.26-10.00	Very Poor

% Dominant Family — High numbers indicates an uneven community, and likely poorer stream health.

RUM RIVER

behind Anoka High School, Anoka
STORET SiteID = S003-189

Last Monitored

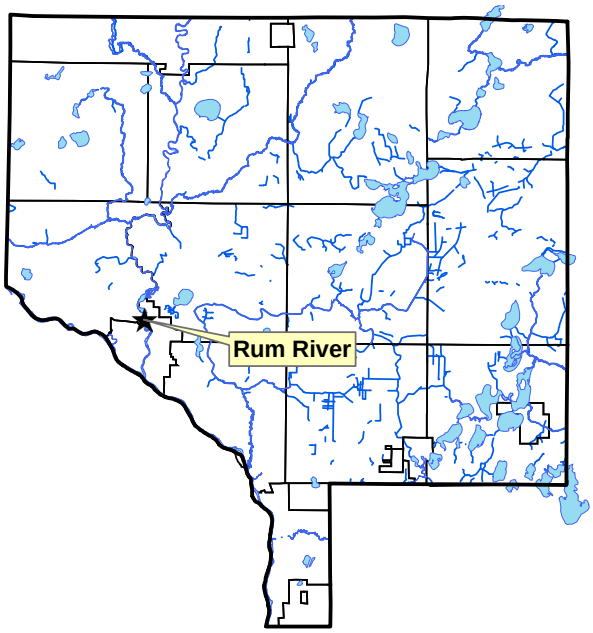
By Anoka High School in 2012

Monitored Since

2001

Student Involvement

70 students in 2012, approximately 480 since 2001



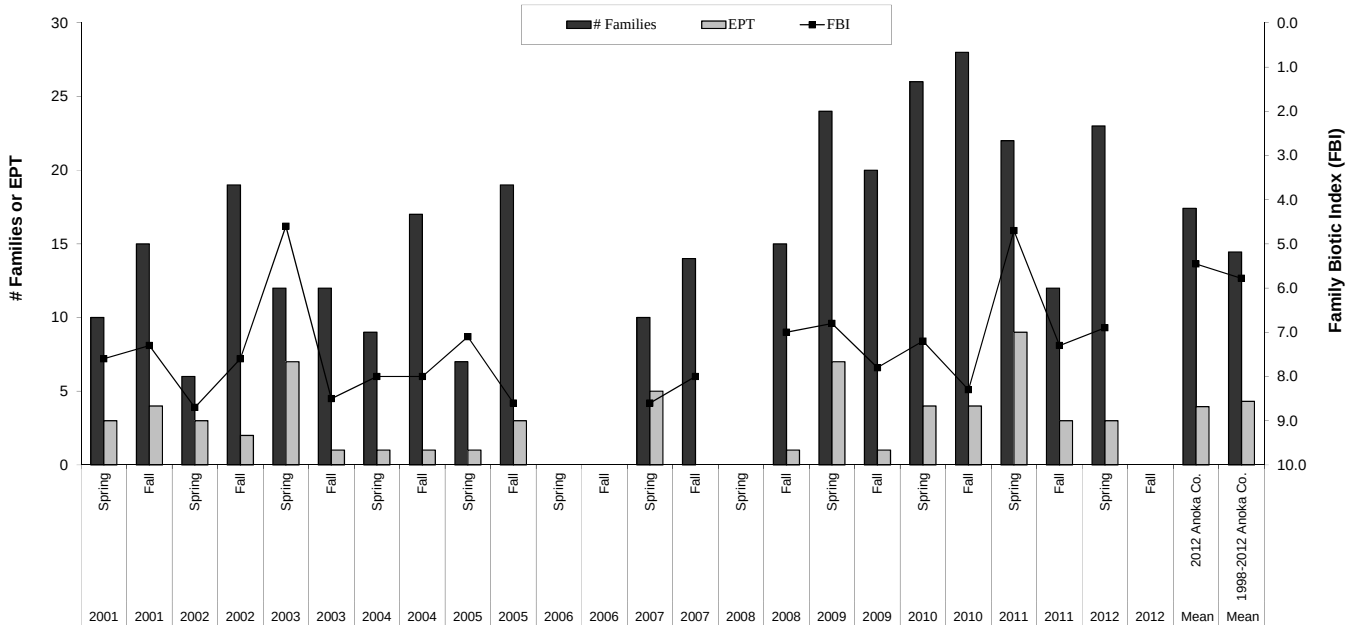
Background

The Rum River originates from Lake Mille Lacs, and flows south through western Anoka County where it joins the Mississippi River in the City of Anoka. In Anoka County the river has both rocky riffles (northern part of county) as well as pools and runs with sandy bottoms. The river's condition is generally regarded as excellent. Most of the Rum River in Anoka County has a state "scenic and recreational" designation. The sampling site is near the Bunker Lake Boulevard bridge behind Anoka High School. Most sampling is not conducted in a backwater rather than the main channel.

Results

The results for spring 2012 were within the range experienced in previous years. More families were found than the average in Anoka County streams. This should be expected as most other sites are small streams and this is a river. The number of sensitive EPT families and the FBI score were poorer than the county average. Taken together, the invertebrate data indicates poorer river health than is desirable. A complicating factor is that sampling was in backwaters rather than the main channel, and a poorer invertebrate community would be expected there.

Summarized Biomonitoring Results for Rum River behind Anoka High School



Biomonitoring Data for the Rum River behind Anoka High School

Data presented from the most recent five years. Contact the ACD to request archived data.

Year	2008	2009	2009	2010	2010	2011	2011	2012	Mean	Mean
Season	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	2012 Anoka Co.	1998-2012 Anoka Co.
FBI	7.00	6.80	7.80	7.20	8.30	4.70	7.30	6.90	5.5	5.8
# Families	15	24	20	26	28	22	12	23	17.4	14.5
EPT	1	7	1	4	4	9	3	3	4.0	4.3
Date	13-Oct	8-May	28-Sep	18-May	7-Oct	10-Jun	5-Oct	8-May		
Sampled By	AHS	AHS	AHS	AHS	AHS	ACD	ACD	AHS		
Sampling Method	MH	MH	MH	MH	MH	MH	MH	MH		
Mean # Individuals/Rep.	626	880	585	443	816	604	188	502		
# Replicates	1	1	2	1	1	1	1	2		
Dominant Family	Baetidae	Siphlonuridae	Hyalellidae	Gastropoda	Hyalellidae	baetidae	hyalellidae	silphonuridae		
% Dominant Family	26.5	40.7	39.1	31.8	34.1	57.5	63.3	37.8		
% Ephemeroptera	26.5	48.2	0.9	8.1	0.9	59.3	11.2	44.9		
% Trichoptera	0	0.1	0	0	0.2	1	0	1.2		
% Plecoptera	0	2.6	0	0.5	0	3.8	0.5	0		

Supplemental Stream Chemistry Readings

Data presented from the most recent five years. Contact the ACD to request archived data.

Parameter	5/7/2007	10/22/2007	10/10/2008	5/8/2009	9/28/2009	5/18/2010	10/7/2010	6/10/2011	10/5/2011	5/8/2012
pH	8.5	7.42	7.75	7.91	7.82	7.24	7.22	7.84	7.98	8.10
Conductivity (mS/cm)	0.283	0.243	0.348	0.276	0.421	0.207	0.399	0.296	0.296	0.205
Turbidity (NTU)	17	13	3	6	5	7	7	18	10	7
Dissolved Oxygen (mg/L)	11.41	9.72	8.99	10.82	8.76	6.93	na	6.85	7.91	7.87
Salinity (%)	0.01	0	0.01	0.01	0.01	0	0.01	0.01	0.01	0.00
Temperature (°C)	15.3	10.6	12.3	17.2	15.5	14.8	12.2	20.7	15.3	15.7

Discussion

Biomonitoring results for this site are much different from the upstream in St. Francis. In St. Francis the Rum River harbors the most diverse and pollution-sensitive macroinvertebrate community of all sites monitored in Anoka County. At the City of Anoka diversity has been moderately high, but the biotic indices were poorer than average because most families were generalists.

The largest reason difference between St. Francis and Anoka invertebrate communities is likely habitat differences. The river near St. Francis has a steeper gradient, and has a variety of pools, riffles, and runs. Downstream, near Anoka, the river is much slower moving, lacking pools, riffles and runs. The bottom is silt-laden. The area is more developed, so there are more direct and indirect human impacts to the river.

Water quality is good throughout the Rum River, though slightly poorer in Anoka than St. Francis. Chemical monitoring in 2004, 2009, 2010, and 2011 revealed that total suspended solids, conductivity, and chlorides were all slightly higher near Anoka than upstream. This is probably due to more urbanized land uses and the accompanying storm water inputs. Given that water quality is still very good even in these downstream areas, it is unlikely that water quality is the primary factor limiting macroinvertebrates at the City of Anoka.

One additional factor to consider when comparing the up and downstream monitoring results is the type of sampling location. Sampling near Anoka was conducted mostly in a backwater area that has a mucky bottom and does not receive good flow. This area is unlikely to be occupied by families which are pollution intolerant.

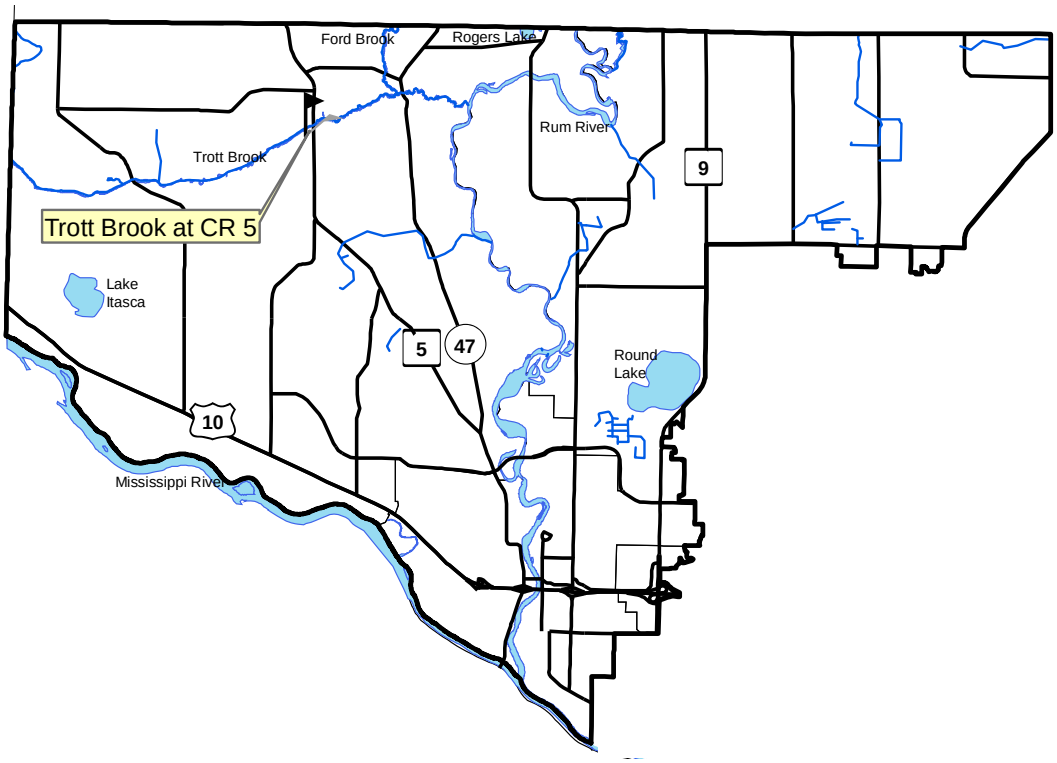
Stream Hydrology

Description: Continuous water level monitoring in streams.

Purpose: To provide understanding of stream hydrology, including the impact of climate, land use or discharge changes. These data are also needed for calculation of pollutant loads and use of computer models for developing management strategies. In the Sunrise River Watershed, the monitoring sites are the outlets of the Sunrise River Watershed Management Organization's jurisdictional area, thereby allowing estimation of flows and pollutant loads leaving the jurisdiction.

Locations: Trott Brook at County Road 5

Lower Rum River Watershed Stream Hydrology Monitoring Sites

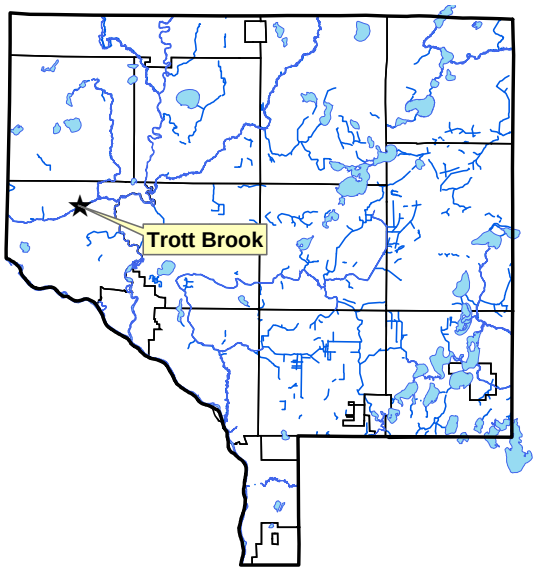


TROTT BROOK

at County Road 5 (Nowthen Blvd NW), Ramsey
STORET SiteID = S003-176

Notes

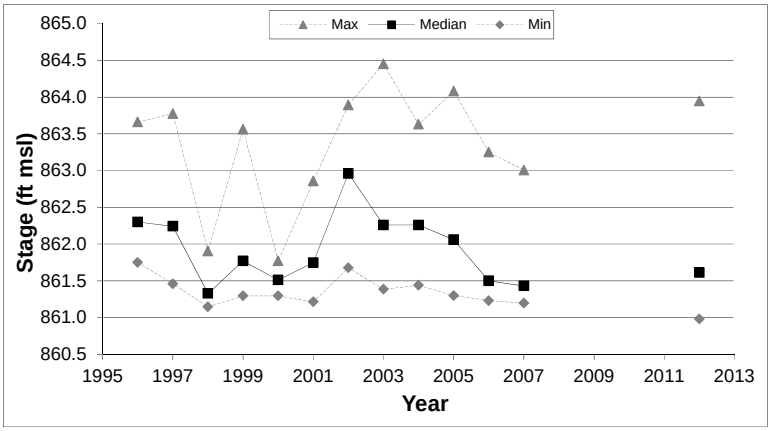
Trott Brook is a medium-sized creek that flows south through Sherburne County, paralleling the Anoka-Sherburne County boundary before turning east through the City of Ramsey where outlets to the Rum River. Overall, the watershed is rural or suburban residential, and areas within the watershed are undergoing rapid development. The creek is about 25 feet wide and 2.5 feet deep at the monitoring site during baseflow.



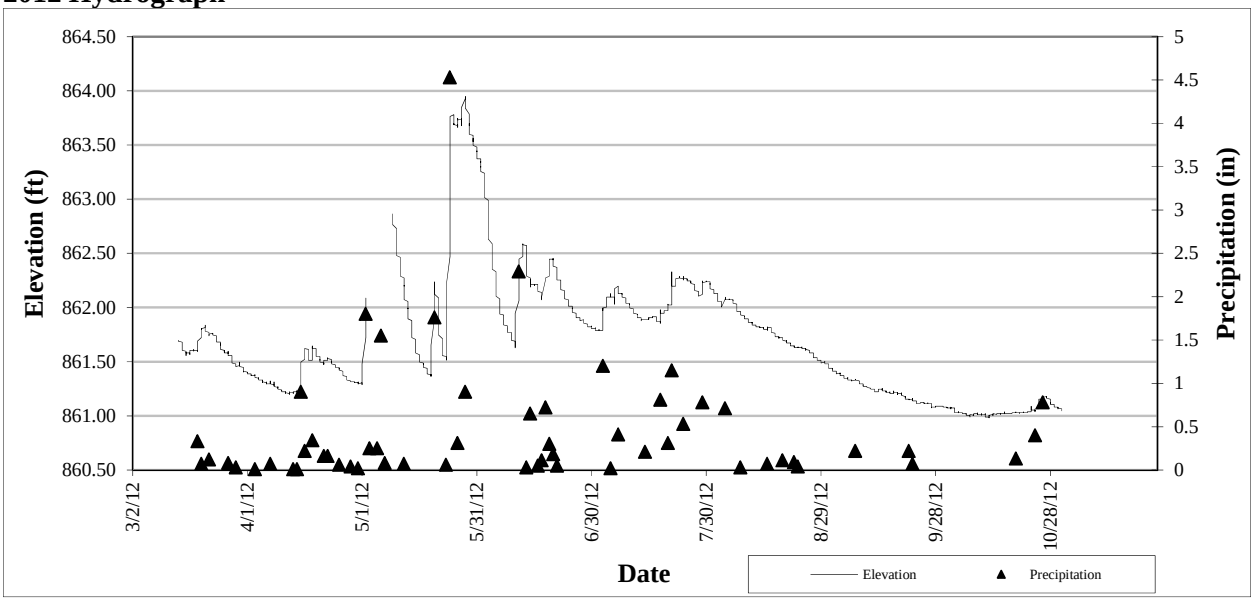
A rating curve for this site was developed in 2012:

Flow (cfs) = $9.1917(\text{stage}-859)^2 - 37.669(\text{stage}-859) + 41.931$

Summary of All Monitored Years



2012 Hydrograph



Stream Rating Curves

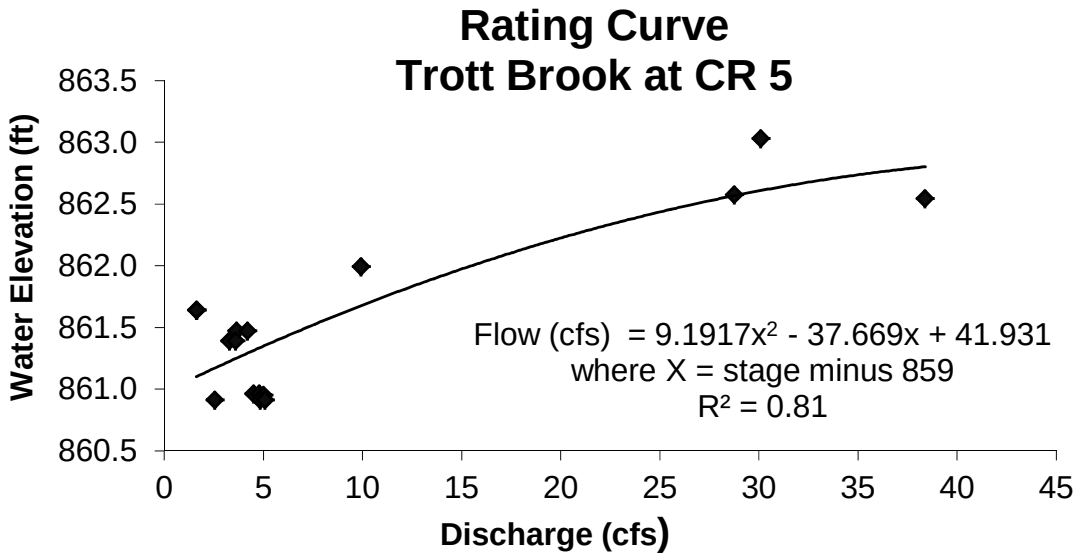
Description: Rating curves are the mathematical relationship between water level and flow volume. They are developed by manually measuring flow at a variety of water levels. These water level-flow measurements are plotted and the equation of a line best fitting these points is calculated. That equation allows flow to be calculated from water level measurements. Continuous water level monitoring in streams.

Purpose: To allow flow to be calculated from water level, which is easier to monitor.

Locations: Trott Brook at County Road 5

Results: In 2012 ACD staff manually measured flow in Trott Brook under a variety of water level conditions. 16 such measurements were used to develop the rating curve presented below. The equation was used to calculate flow from continuous stream water level monitoring measurements.

Trott Brook at County Road 5 Rating Curve



Wetland Hydrology

Description: Continuous groundwater level monitoring at a wetland boundary to a depth of 40 inches. County-wide, the ACD maintains a network of 21 wetland hydrology monitoring stations.

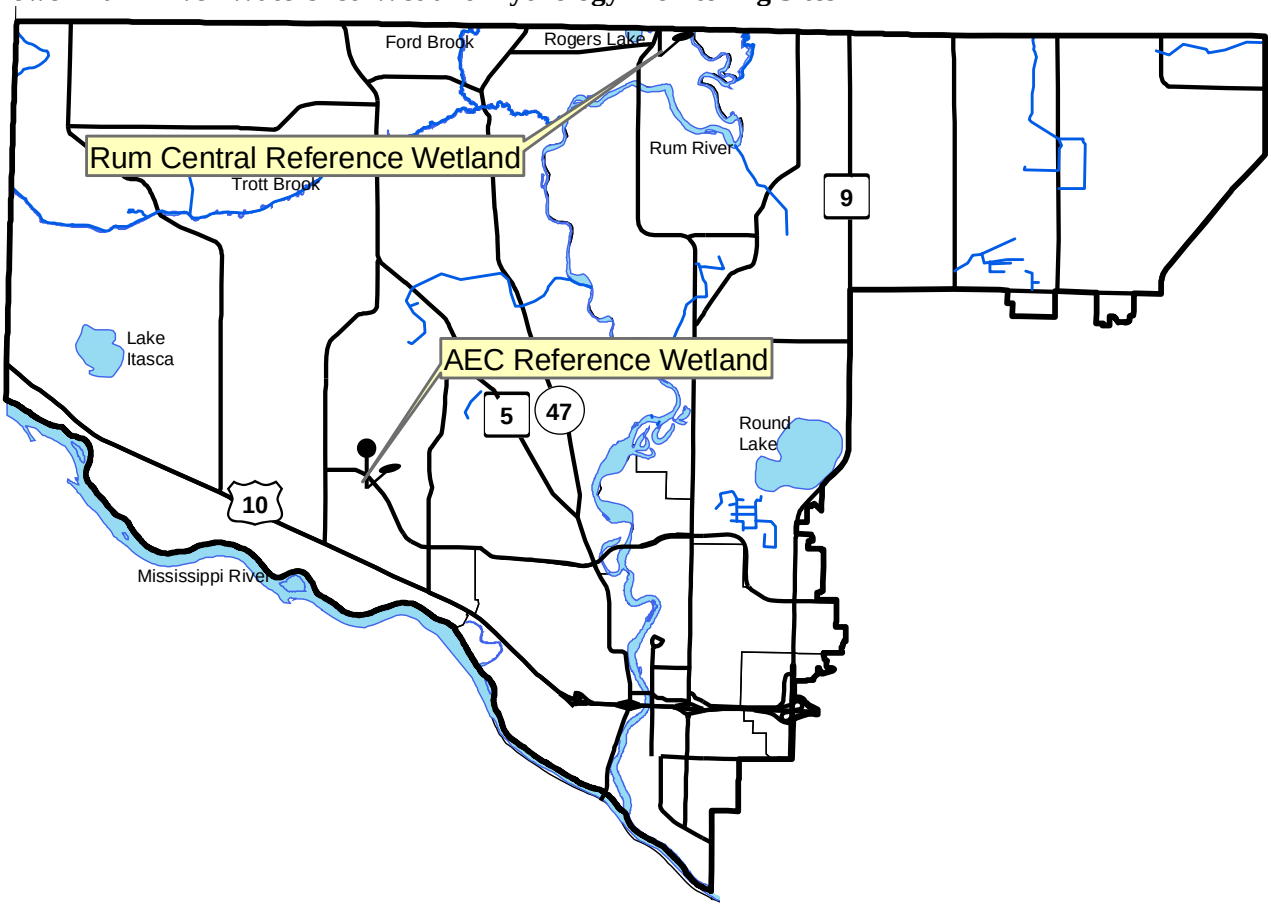
Purpose: To provide understanding of wetland hydrology, including the impact of climate and land use. These data aid in delineation of nearby wetlands by documenting hydrologic trends including the timing, frequency, and duration of saturation.

Locations: AEC Reference Wetland, Connexus Energy Property on Bunker Lake Blvd, Ramsey

Rum River Central Reference Wetland, Rum River Central Park, Ramsey

Results: See the following pages. Raw data and updated graphs can be downloaded from www.AnokaNaturalResources.com using the Data Access Tool.

Lower Rum River Watershed Wetland Hydrology Monitoring Sites

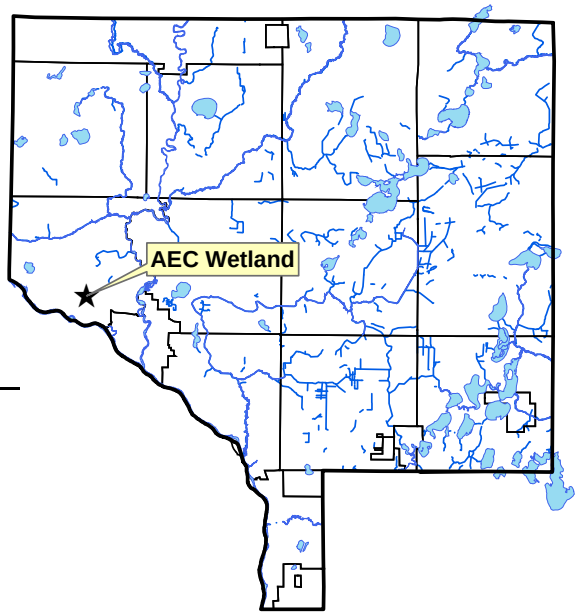


Wetland Hydrology Monitoring

AEC REFERENCE WETLAND

Cottonwood Park, adjacent to Connexus Energy Offices (formerly Anoka Electric Coop), Ramsey

Site Information



Monitored Since: 1999

Wetland Type: 3

Wetland Size: ~18 acres

Isolated Basin? No, probably receives storm water

Connected to a Ditch? No

Soils at Well Location:

Horizon	Depth	Color	Texture	Redox
A	0-15	10yr2/1	Sandy Loam	-
Bw	15-40	10yr3/2	Gravelly Sandy loam	-

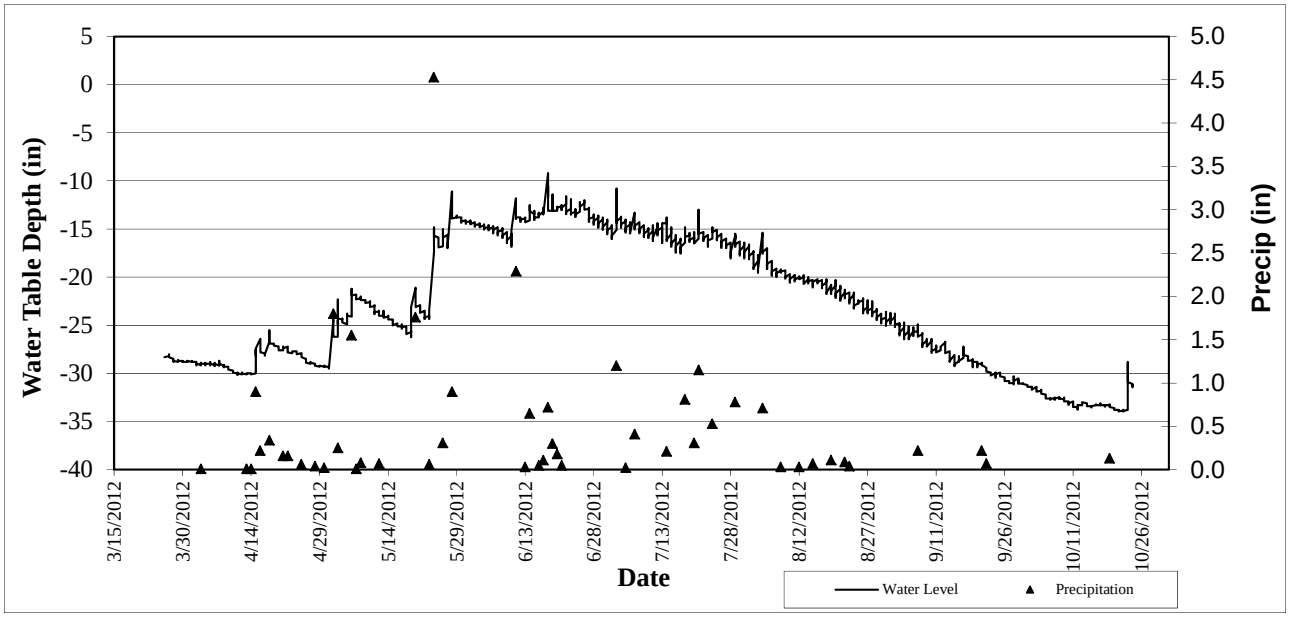
Surrounding Soils: Hubbard coarse sand

Vegetation at Well Location:

Scientific	Common	% Coverage
Populus tremuloides	Quaking Aspen	30
Salix bebbiana	Bebb Willow	30
Carex Spp	Sedge undiff.	30
Solidago canadensis	Canada Goldenrod	20

Other Notes: Well is located at the wetland boundary.

2012 Hydrograph



Well depth was 42 inches, so a reading of –42 indicates water levels were at an unknown depth greater than or equal to 42 inches.

Wetland Hydrology Monitoring

RUM RIVER CENTRAL REFERENCE WETLAND

Rum River Central Regional Park, Ramsey

Site Information

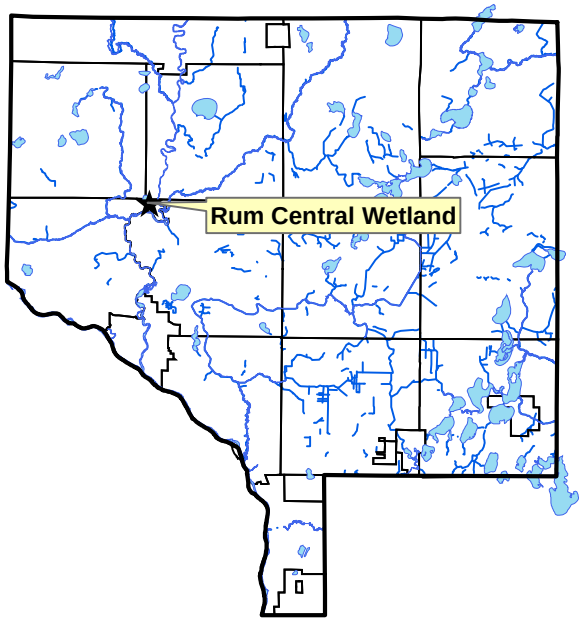
Monitored Since: 1997

Wetland Type: 6

Wetland Size: ~0.8 acres

Isolated Basin? Yes

Connected to a Ditch? No



Soils at Well Location:

Horizon	Depth	Color	Texture	Redox
A	0-12	10yr2/1	Sandy Loam	-
Bg1	12-26	10ry5/6	Sandy Loam	-
Bg2	26-40	10yr5/2	Loamy Sand	-

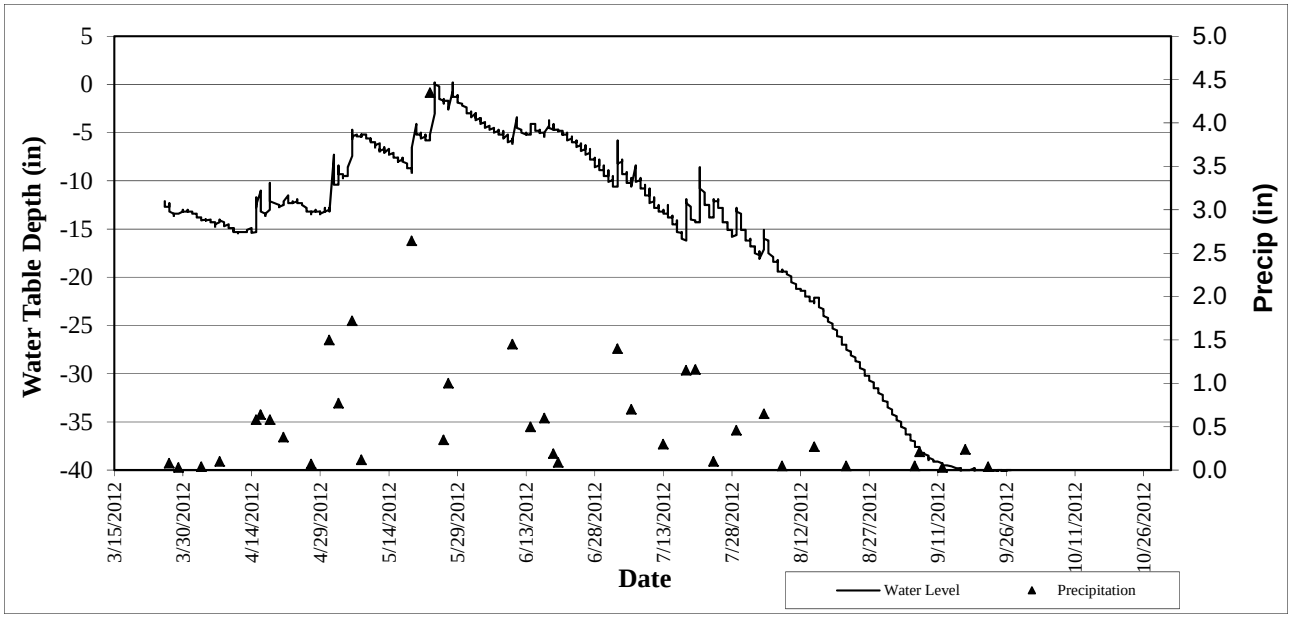
Surrounding Soils: Zimmerman fine sand

Vegetation at Well Location:

Scientific	Common	% Coverage
Phalaris arundinacea	Reed Canary Grass	40
Corylus americanum	American Hazelnut	40
Onoclea sensibilis	Sensitive Fern	30
Rubus strigosus	Raspberry	30
Quercus rubra	Red Oak	20

Other Notes: Well is located at the wetland boundary.

2012 Hydrograph



Well depth was 40 inches, so a reading of –40 indicates water levels were at an unknown depth greater than or equal to 40 inches.

Water Quality Grant Fund

Description: The LRRWMO provided cost share for projects on either public or private property that will improve water quality, such as repairing streambank erosion, restoring native shoreline vegetation, or rain gardens. This funding was administered by the Anoka Conservation District, which works with landowners on conservation projects. Projects affecting the Rum River were given the highest priority because it is viewed as an especially valuable resource.

Purpose: To improve water quality in lakes streams and rivers by correcting erosion problems and providing buffers or other structures that filter runoff before it reaches the water bodies.

Results: Projects receiving grant funds are reported in the year they are installed. In 2012 the Smith Rum Riverbank Stabilization used $1,596.92 of LRRWMO cost share dollars.

LRRWMO Cost Share Fund Summary

2006 LRRWMO Contribution	+	$1,000.00
2008 Expense – Herrala Rum Riverbank stabilization	-	$ 150.91
2008 Expense – Rusin Rum Riverbank stabilization	-	$ 225.46
2009 LRRWMO Contribution	+	$1,000.00
2009 Expense – Rusin Rum Riverbank bluff stabilization	-	$ 52.05
2010 LRRWMO Contribution	+	$ 0
2010 LRRWMO Expenses	-	$ 0
2011 LRRWMO Contribution	+	$ 0
2011 Expense - Blackburn Rum riverbank	-	$ 543.46
2012 LRRWMO Contribution	+	$1,000.00
2012 Expense – Smith Rum Riverbank	-	$ 1,596.92
Fund Balance		**$ 431.20**

Smith Rum River Stabilization

Anoka Conservation District (ACD) staff installed a cedar tree revetment on a residential property that borders the Rum River in Ramsey during the fall of 2012. Cedar tree revetments are a cost-effective bioengineering practice that can be used to stabilize mild or moderately eroding streambanks. The Smith property had moderate bank undercutting. Installation of the 70 foot cedar tree revetment will slow or stop the erosion and reduce the likelihood of a much larger and more expensive corrective project in the future. Because this project was on a steep slow below a home, it was a high priority for the landowner. It benefits river water quality by reducing sediment delivered to the river, and improves habitat.

Cedar tree revetments are created by anchoring cut cedar trees to the bank. In this case, the trees were harvested at no cost from an Anoka County park where they were undesirable. Each tree was anchored to the toe of the slope using cable, horseshoe clamps, and a duckbill anchor driven 3-4 feet into the bank. The tree's many branches deflect the water's energy from the bank. This low cost treatment is highly effective on mild to moderate problem areas.

Project Funding

LRRWMO Water Quality Cost Share	$1,596.92
Ag PreservesWater Quality Cost Share	$563.88
Landowner	$2,160.80
TOTAL	$4,321.60

Public Education – Web Video

Description: The Lower Rum River Watershed Management Organization (LRRWMO) contracted the Anoka Conservation District (ACD) to create a short web video about state scenic river rules that apply to the Rum River. The video is to be posted on the LRRWMO website.

Purpose: To improve public understanding of the LRRWMO, its functions, and accomplishments.

Location: www.AnokaNaturalResources.com/LRRWMO

Results: As of January 27, 2013 the video production is in process. Appropriate video clips have been compiled. Many of these video clips were collected by ACD staff during the LRRWMO's boat tour of the river in September 2011. The video compilation will be completed and presented to the LRRWMO Board before March 31, 2012.

Review Member Communities' Local Water Plans

Description: Member cities must have local water plans and ordinances consistent with the LRRWMO 3rd Generation Watershed Management Plan (MN Rules 8410.0130 and 84100160). Cities might start this process in 2012, and the deadline for completion is December 14, 2013. The LRRWMO has approval authority over the Local Water Management Plans. Once a community submits their updated Local Water Management Plan to the WMO for review, the WMO has 60 days to provide comments. The Metropolitan Council has a simultaneous 45 day review period, and the WMO's review of the Plan must include a review of Metropolitan Council's comments.

The LRRWMO has requested that the ACD assist with their review of local water plans as they are completed. It is anticipated that communities will submit plans for review in both 2012 and 2013.

Purpose: To ensure the policies and actions in the LRRWMO 3rd Generation Watershed Management Plan are implemented consistently across the watershed.

Location: Watershed-wide

Results: As of January 7, 2012 no cities have submitted local water plan updates to the LRRWMO for review. Cities should be reminded of the December 14, 2013 deadline.

LRRWMO Website

Description: The Lower Rum River Watershed Management Organization (LRRWMO) contracted the Anoka Conservation District (ACD) to design and maintain a website about the LRRWMO and the Lower Rum River watershed. The website has been in operation since 2003. The LRRWMO pays the ACD annual fees for maintenance and update of the website.

Purpose: To increase awareness of the LRRWMO and its programs. The website also provides tools and information that helps users better understand water resources issues in the area. The website serves as the LRRWMO's alternative to a state-mandated newsletter.

Location: www.AnokaNaturalResources.com/LRRWMO

Results: The LRRWMO website contains information about both the LRRWMO and about natural resources in the area.

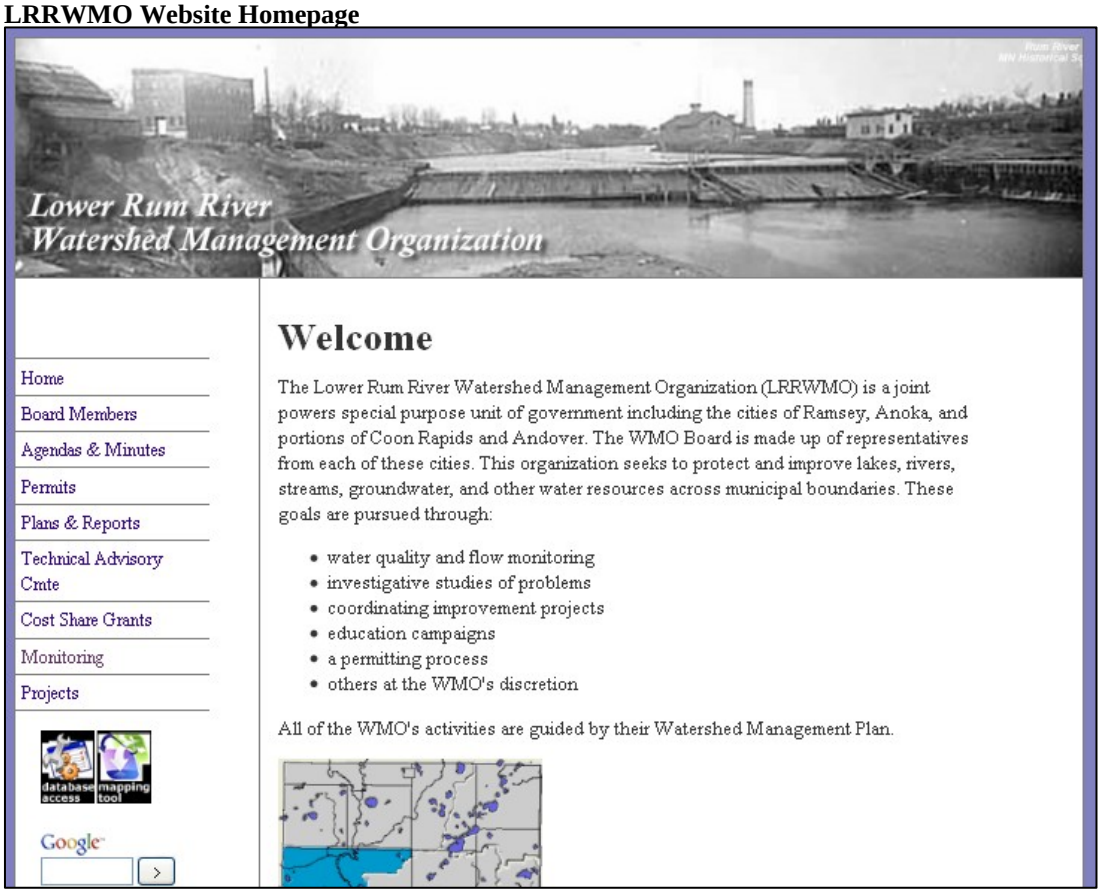
Information about the LRRWMO includes:

- a directory of board members,
- meeting minutes and agendas,
- descriptions of work that the organization is directing,
- highlighted projects,
- permit applications,
- the watershed management plan,
- annual reports, and others.

Other tools on the website include:

- an interactive mapping tool that shows natural features and aerial photos
- an interactive data download tool that allows users to access all water monitoring data that has been collected
- narrative discussions of what the monitoring data mean

LRRWMO Website Homepage



Financial Summary

ACD accounting is organized by program and not by customer. This allows us to track all of the labor, materials and overhead expenses for a program. We do not, however, know specifically which expenses are attributed to monitoring which sites. To enable reporting of expenses for monitoring conducted in a specific watershed, we divide the total program cost by the number of sites monitored to determine an annual cost per site. We then multiply the cost per site by the number of sites monitored for a customer.

Lower Rum River Watershed Financial Summary

Lower Rum River Watershed	Ref Wet	Lake Lvl	Stream Level	Rating curve	Lake WQ	Stream WQ	Student Biomon	LRRWMO Admin	Cost Share/ Lakescape/ Rain Garden	LRRWMO Outreach/Promo	Total
Revenues											
LRRWMO	1100	680	550	1800	1370	1330	795	5967	1597	1420	16609
State	0	0	0	0	0	0	0	0	0	0	0
Anoka Conservation District	0	0	0	0	0	0	0	0	0	0	0
County Ag Preserves	0	0	0	0	405	0	145	0	564	0	1114
Regional/Local	0	0	0	0	0	0	0	0	0	0	0
Other Service Fees	0	0	0	0	0	0	0	0	0	0	0
Local Water Planning	0	84	0	0	269	173	0	0	0	0	526
TOTAL	1100	764	550	1800	2044	1503	940	5967	2161	1420	18248
Expenses-											
Capital Outlay/Equip	8	7	3	23	17	9	11	3	0	3	84
Personnel Salaries/Benefits	737	655	426	1333	1287	797	745	303	0	538	6822
Overhead	59	52	35	102	112	65	60	29	0	52	565
Employee Training	2	2	2	1	2	2	1	2	0	4	16
Vehicle/Mileage	16	14	9	27	28	16	16	4	0	9	138
Rent	33	30	22	50	53	38	30	20	0	36	312
Program Participants	0	0	0	0	0	0	0	0	2161	0	2161
Program Supplies	5	4	14	0	545	575	77	0	0	0	1220
McKay Expenses	0	0	0	0	0	0	0	0	0	0	0
TOTAL	860	764	510	1535	2044	1503	940	360	0	641	9157
NET	240	0	40	265	0	0	0	5607	2161	779	9091

Recommendations

- **Actively participate in the MPCA Rum River WRAPP (Watershed Restoration and Protection Plan) which is beginning in 2013.** This WRAPP is an assessment of the entire Rum River watershed. This is an opportunity for the LRRWMO to prioritize and coordinate efforts with upstream entities and state agencies. TMDL studies with regulatory implications will likely arise out of this project.
- **Diagnose low dissolved oxygen in Trott Brook.** Water quality and hydrology monitoring is planned during 2012 for the Rum River WRAPP project. A TMDL study and implementation plan are desirable outcomes.
- **Remind LRRWMO Cities that local water plans must be updated**, reviewed, and approved by the LRRWMO by December 14, 2013. The review process takes several months.
- **Implement water conservation measures** throughout the watershed and promote it metro-wide. Depletion of surficial water tables are having observable, sometimes dramatic, impacts

on some lake levels and wetlands. Metropolitan Council models predict 3+ft drawdown of surface waters in certain areas by 2030, and 5+ft by 2050.

- **Repeat periodic tours of the Rum River by the LRRWMO Board.** These boat tours are useful for identifying problems and the overall condition of the resource.
- **Continue lake level monitoring, especially on Round Lake** where residents have expressed concerns with levels. Other nearby lakes should be monitored for comparison and problems.
- **Facilitate resident efforts to control aquatic plant growth on Rogers Lake** as a means to improving low dissolved oxygen problems. In early 2010 a meeting for residents was held, interest expressed, but coordination and work needed by residents did not materialize. Treatments should occur in early spring, occur on no more than 15% of the lake, be coordinated, and proceed under DNR permits.
- **Emphasize protection of Rum River water quality.** The river's water quality declines slightly in the LRRWMO and anticipated future development could cause further deterioration.
- **Complete a stormwater retrofitting assessment for the City of Anoka.** The project will identify and rank projects that improve stormwater runoff before it is discharged to the Rum River.
- **Continue the existing cost share grant program for water quality improvement projects** on private properties.
- **Encourage public works departments to implement measures to minimize road deicing salt applications**. Monitoring and special investigations in the LRRWMO and elsewhere nearby have shown that road salts are a serious and widespread sources of stream degradation.