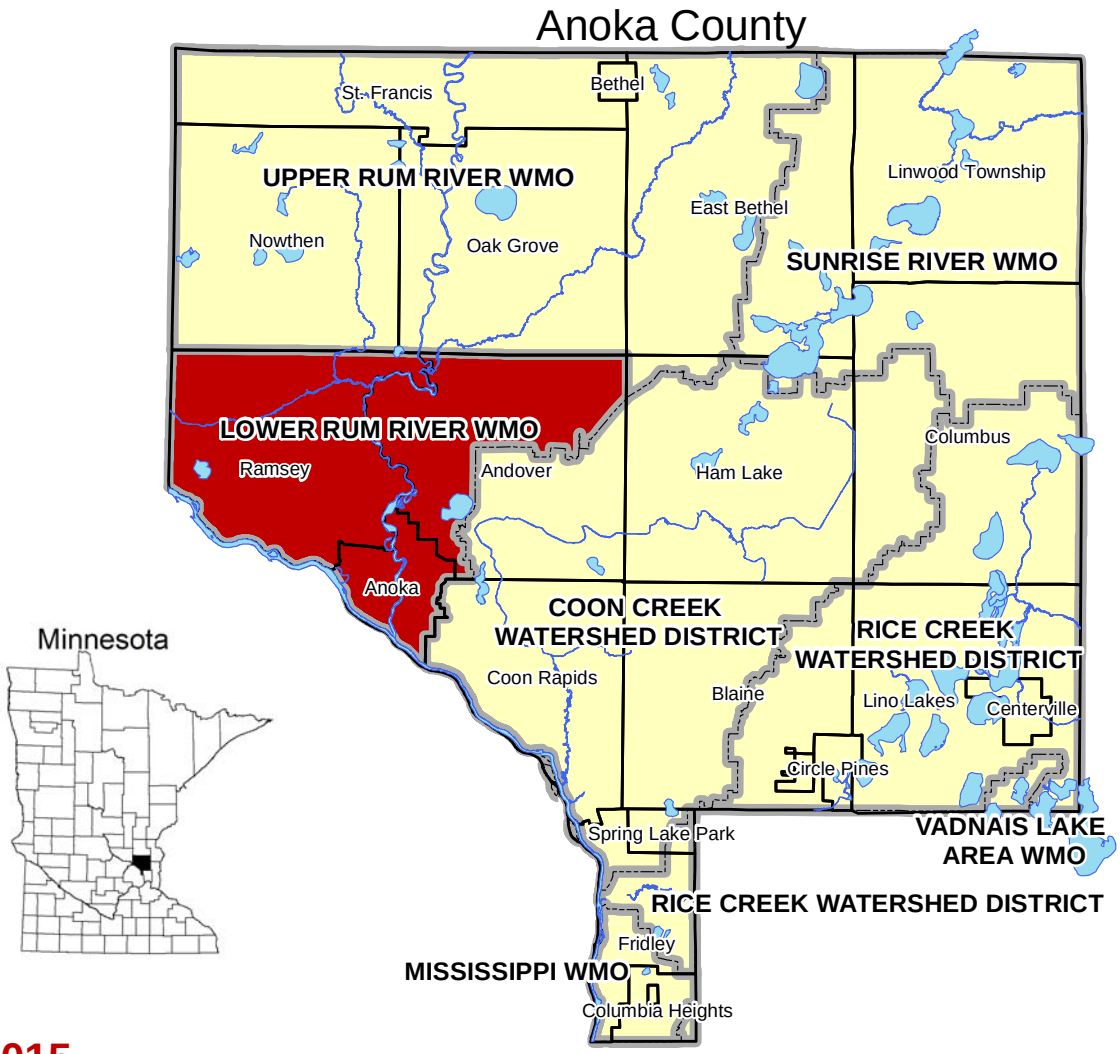
2014 Annual Report

Lower Rum River

Watershed Management Organization

Andover – Anoka – Ramsey



May 29, 2015

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Lower Rum River Watershed Management Organization
2015 First Avenue
Anoka, MN 55303
www.LRRWMO.org

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 2014 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 Andover. 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)
17337 Roanoke St NW
Anoka, MN 55304
763.427.4485
bpmpandover@comcast.net

CITY OF ANOKA

Carl Anderson (Treasurer)
2015 1st Ave N
Anoka, MN 55303
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 RAMSEY

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

Chris Riley (Alternate)
7550 Sunwood Dr NW
Ramsey, MN 55303
763.427.1410
criley@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. • Assistance reviewing local water plans.
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 WMO solicited proposals in early 2012 for work to occur 2013 and 2014. Most recently, in late 2014 the WMO again solicited proposals for professional services as follows.

The LRRWMO last 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
Selected:	Kennedy and Graven
Date of selection:	November 20, 2014

Engineering Services, including permit review and WCA TEP Representative

Proposals received:	Barr Engineering Hydromethods
Selected:	Barr Engineering
Date of selection:	December 18, 2014

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. The plan contains a detailed schedule of tasks that the LRRWMO should accomplish each year in order to realize its goals. **Appendix B** is a table that shows tasks planned for each year in the watershed management plan, as well as responsible parties. It details which tasks are planned and completed.

The LRRWMO deviated from its work plan in 2014 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 2013-14 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.

Change	Did not do an assessment of the Anoka Dam.
Reason	Cities have met to discuss responsibilities for the dam. At this time the City of Anoka is the lead for this structure, and has engaged in planning processes for maintenance and future management.

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 status of each is summarized in the table below.

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	The City of Andover has been granted an extension by the LRRWMO to their local water plan deadline because there city is in both the LRRWMO and Coon Creek Watershed District (CCWD), which recently completed updating its watershed plan. The extension will allow the city to perform updates needed for both watershed organizations simultaneously. In February 2015 Andover submitted a draft local water plan to the LRRWMO for review. The city has all of the ordinances required by the LRRWMO. Upon approval of their revised local water plan the city will update ordinances as needed.
Submitted 2014 annual report to LRRWMO?	Yes
Some Recent Implementation Accomplishments	• Approved a floodplain ordinance. • Street sweeping completed annually. • Water control structures and stormwater treatment basins are inspected ever five years. • Illicit discharge detection and elimination program. • Purchased open spaces called Martin's Meadows and Northwoods Preserve. Efforts underway include prairie establishment, buckthorn control, and scenic overlook site stabilization. • In 2014 reached 3,300 households repeatedly with multiple public education efforts including newsletter articles, brochures available at city hall, website posting, local television announcements about storm 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 2014 street reconstruction additional stormwater treatment was added, including sumps and stabilizing a ditch. • Andover is actively inspecting its outfalls into the Rum River and other public waters. Records are maintained in city GIS 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

The City of Anoka submitted a draft local water plan to the LRRWMO in early 2014. The LRRWMO submitted comments. A revised version was re-submitted to the LRRWMO in February 2015.

The city has all of the ordinances required by the LRRWMO, except stormwater standards and wetland standards. The city plans to revise local ordinances once their local water plan is approved.

Submitted 2014 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.
- Illicit discharge detection and elimination program.
- In 2014 installed a rain garden on a city trailway project.
- In 2014 stabilized a portion of Rum Riverbank with riprap and native plantings.
- In 2014 completed a channel restoration projet along the Mississippi River, including native plantings.
- In 2014 produced 1 newsletter article, two brochures, on local television program and an Arbor Day tree program on topics of water conservation, hazardous waste disposal and yard waste management. 8,000 residents were reached.
- Planning to perform bank stabilization and native plantings along the Mississippi River at Kings Island Park.
- Surveyed water elevations and Mississippi River bottom to determine high water elevations and gather information for establishing a no wake restriction to reduce bank erosion.
- Identify and address stormwater issues during each roadway project.

City of Ramsey

Local Water Plan Status

The City of Ramsey has a local watershed plan revision underway, and anticipates submitting it to the LRRWMO for review in spring 2015.

Ramsey has all of the ordinances required by the LRRWMO.

Submitted 2014 annual report to LRRWMO?

Yes

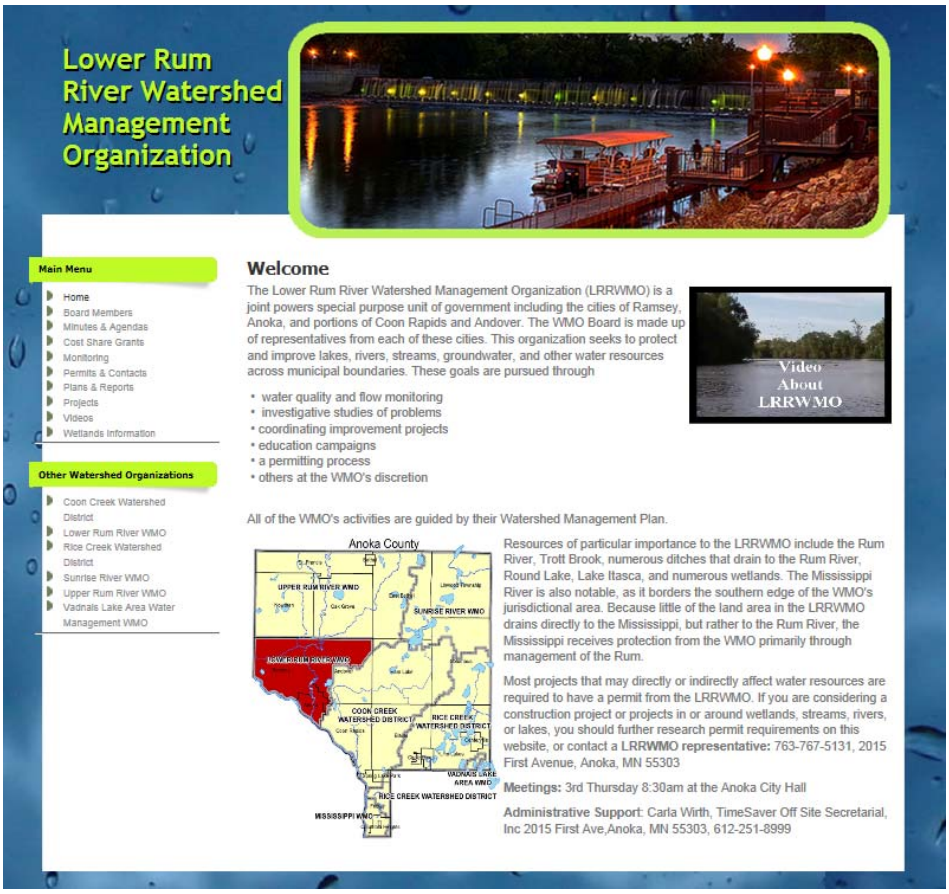
Some Recent Implementation Accomplishments

- Annual street sweeping.
- Implementing a five year plan for inspecting stormwater ponds.
- Illicit discharge detection and elimination program.
- Reached 9,500 households in 2014 with 4 newsletter articles and mailing a WMO-produced brochure about wetland protection. Topics of education efforts included wetland protection, controlling invasive species, water conservation, hazardous waste disposal, yard waste management, and pet waste disposal.
- 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 was overhauled.



- **Web videos** – To bolster the content of the website the LRRWMO creates web videos. They include:

2012	About the LRRWMO
2013-14	Water conservation
2014-15	Wetland regulation, correcting riverbank erosion

- **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 2013 the LRRWMO hosted 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 officials, 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 float was last done in fall 2013.
- **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.

  In 2013 the LRRWMO produced a map about wetland regulation mailed to over 2,000 landowners who own land with or adjacent to wetlands. Each brochure included a custom neighborhood level map.

  We also created a one-stop shop of wetland regulatory information website in 2013. This was done on the Anoka Conservation District's website so it could serve parts of our communities that are not in the LRRWMO, as well as surrounding areas.

  In 2014 two newsletter articles and one web video were produced.

g. Permits, Variances, and Enforcement Actions

The LRRWMO's 2014 permit activity is summarized in the table below.

Permit Name	Permit #	City	Summary
Garfield Electrical Substation	2014-01	Anoka	New electrical substation to be located at 7th Avenue and Garfield Street. Regional stormwater basin to be constructed as part of the project, **Project was approved.**
White Pine Wilderness Second Addition	2014-02	Andover	34-lot; 20-acre, single-family residential subdivision. Two stormwater basins are to be constructed on-site. **Project was approved.**
Country Oaks North 2nd Addition	2014-03	Andover	Boundary determination of on-site wetland **was approved.**
Rum River Shores North	2014-04	Anoka	63-lot, 30-acre, single-family residential subdivision located southwest of the intersection of 7th Avenue NW and 145th Avenue NW. Six stormwater basins are to be constructed on-site. **Project was approved.**
Pine Ridge	2014-05	Ramsey	6-lot, 26-acre, single-family residential subdivision. Two stormwater basins are to be constructed on-site. **Project was approved.**
Country Club Hills	2014-06	Ramsey	Continuation of the Sweetbay Ridge development constructed in 2006 and 2007. Original Permit #2005-15. 85-lot, single-family residential lots. **Project was approved.**
Rabbit Meadows	2014-07	Ramsey	3-lot, 10-acre single-family residential subdivision. On-site stormwater basin constructed to comply with LRRWMO requirements. **Project was approved.**
Country Oaks North Stockpile	2014-08	Andover	21,000 cubic yards of excess material from the Country Oaks North project stockpiled on the Kuiken Property. **Project was approved.**
Rose Park	2014-09	Andover	Improvements to Rose Park. On-site stormwater basin is to be constructed. **Project was approved.**
Ridge Point	2014-10	Ramsey	6-lot, 6-acre single-family residential subdivision. Filling of the floodplain volume of the Mississippi River proposed (3,775 cubic yards). Mitigation will result in a net increase of 700 cubic yards of floodplain volume. On-site stormwater basin proposed to be constructed. **Project was approved.**

Continued on the following page

Permit Name	Permit #	City	Summary
Armstrong Boulevard and T.H. 10 Interchange Construction	2014-11	Ramsey	Construction of bridges over both T.H. 10 and the BNSF Railroad for Armstrong Blvd. and associated ramps. Stormwater runoff directed to several existing and proposed stormwater basins to comply with LRRWMO criteria. **Project was approved.**
Center Street Construction	2014-12	Ramsey	Center Street construction from Sunwood Drive to East Ramsey Boulevard. **Project was approved.**
Culvert Replacement—C.S.A.H. 7 north of Valley Drive	2014-13	Andover	Replacement of the existing 48-inch CMP with a 48-inch HDPE pipe at the County Ditch crossing of C.S.A.H. 7 north of Valley Drive. **Project was approved.**
Homestead at Anoka – Phase 2	2014-14	Anoka	41,000 square foot multi-story building addition. Regional stormwater basin constructed by City for stormwater management to meet LRRWMO criteria. **Project was approved.**
Country Oaks North Utility Installation	2014-15	Andover	**The project was approved** including a financial assurance in the amount of $7300 for wetland restoration, if necessary.
Casey's General Store	2014-17	Ramsey	Site 1.6 acres. Underground stormwater system to comply with LRRWMO stormwater requirements. **Project was approved.**
Ramsey Fire Station #2	2014-18	Ramsey	2.4-acre site. Proposed site impervious area is 1.0 acres. Stormwater management to be provided on a sediment/infiltration basin in the northeast corner of the site and a basin within the southern part of the site. **Project was 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.
- 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. 2015 Work Plan

Planned 2014 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	$1,000
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. Sunfish Lake is monitored by Anoka Ramsey Community College. The Anoka Conservation District is hired to monitor Round Lake.	None in 2015	$0
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.	AEC Ref Wtld Rum Central Ref Wtld Lake Itasca Trails Ref Wtld	$1,725
Stream Hydrology Monitoring	To allow loading calculations from water chemistry monitoring that is ongoing.	In 2014 Trott Brook is being monitored by the state as part of the Rum River WRAP project. The stream has a known problem of low dissolved oxygen. The LRRWMO is contributing hydrology monitoring to the problem diagnosis effort.	None in 2015	$0
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.lrrwmo.org	$585
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 2014 a web video about correcting riverbank erosion will be produced and posted to the LRRWMO website.	Watershed-wide	$1,500
Wetland Public Education	To increase public awareness of wetland values and regulation.	In 2015: 1. Interpretive signage in public spaces. 2. Create a trade-show style display for community events 3. Two newsletter articles	Watershed-wide	$12,700
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

Task	Purpose	Description	Locations or Action	Cost
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
Permitting Program	To ensure water quality and hydrology are properly taken into consideration during construction projects.	The LRRWMO permitting program targets land disturbance activities.	Watershed-wide	variable
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

The LRRWMO deviated from its watershed management plan for 2014 in the following ways:

Change Removed Trott Brook stream water quality and hydrology monitoring.
Reason The MPCA monitored this site in 2013-14 as part of a WRAP study. The LRRWO has done extensive monitoring previously. The issues are understood. In 2015-16 the LRRWMO will actively participate in WRAP/TMDL planning for this waterway, with implementation to follow.

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.

Change Establishment of a grant matching fund has not begun.
Reason The WMO has sufficient cash reserves to match grants if it wishes.

III. Financial and Audit Report

a. 2014 Financial Summary

See Appendix A.

b. Fund Balances

See Appendix A.

c. Financial Audit Documentation

The LRRWMO has approved an audit of 2014 finances. Completion is anticipated in July 2015. The audit report will be provided to BWSR at that time.

d. 2015 Budget

At its January 15, 2015 meeting the LRRWMO Board approved the 2015 budget shown below.

RESOLUTION # 2015-01

RESOLUTION OF THE LOWER RUM RIVER WATERSHED MANAGEMENT ORGANIZATION (LRRWMO) FOR ADOPTING THE BUDGET FOR YEAR 2015

BE IT RESOLVED by the Board of the Lower Rum River Watershed Management Organization of Minnesota as follows:

1. The budget for the LRRWMO the year 2015 is hereby approved and adopted with appropriations for each of the various activities as follows:

REVENUE:	
Assessments	
Andover	$ 22,300
Anoka	$ 17,473
Ramsey	$ 40,227
	$ 80,000
Permits	$ 30,000
Interest earnings	$ 100
TOTAL REVENUES	$ 110,100
EXPENDITURES:	
Engineering	$ 3,300
Permit Review	$ 26,700
Legal	$ 4,000
Financial Services	$ 11,400
Secretarial Services	$ 7,000
Postage, Copying, etc.	$ 1,500
Insurance	$ 2,200
Wetland Education	$ 11,580
Web Site Maintenance & Education	$ 585
Report to BWSR - Annual Report	$ 850
Grant funding	$ 1,000
Water Quality cost share grant	$ 1,200
Wetland education (2 city news articles)	$ 1,120
Lake Level Monitoring	$ 1,000
Stream Hydrology, water quality & biomonitoring	$ 5,650
Wetland monitoring	$ 1,725
Stormwater retrofit	$ 4,000
Anoka Dam Assessment	$ 2,500
Miscellaneous	$ 2,000
TOTAL	$ 89,310
NET INCOME	$ 20,790
LRRWMO Plan update/reserve	*$ 20,000*

Adopted by the Board of Commissioners of the Lower Rum River Water Management Organization of Minnesota this 15th day of January 2015.

ATTEST:

Carl Anderson, Treasurer of LRRWMO

Todd Haas, Chairman of LRRWMO

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Appendix A:
2014 Financial Report

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LOWER RUM RIVER WATER MANAGEMENT ORGANIZATION

BALANCE SHEET
JANUARY 31, 2015

Assets		
Current assets:		
Cash and investments	$	125,852
Accounts receivable		3,041
Due from other governments		768
Total current assets		129,661
Liabilities		
Current liabilities:		
Accounts payable		3,566
Deposits		38,283
Total current liabilities		41,849
Net Assets		
Unrestricted		87,812
Total liabilities and net assets	$	129,661

LOWER RUM RIVER WATER MANAGEMENT ORGANIZATION

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS
BUDGETARY COMPARISON SCHEDULE
YEAR ENDED JANUARY 31, 2015

	Final Budget	Actual	Variance from Budget Positive (Negative)
Operating Revenues			
Assessments from participating cities	$ 75,000	$ 75,000	$ -
Permits			
Service fees	2,000	1,850	(150)
Engineering fees	23,000	25,455	2,455
Intergovernmental	-	768	768
Miscellaneous	-	56	56
Total revenues	100,000	103,129	2,305
Operating Expenses			
Engineering Fees:			
Permits	20,000	25,455	(5,455)
Administrative	5,000	6,557	(1,557)
Legal and professional fees	4,350	3,029	1,321
Insurance	2,300	1,791	509
Secretarial services and supplies	10,500	10,510	(10)
Projects	21,360	12,710	8,650
Other	3,000	153	2,847
Total expenditures	66,510	60,205	6,305
Operating income (loss)	33,490	42,924	8,610
Nonoperating revenues:			
Interest income	100	33	(67)
Change in net assets	$ 33,590	42,957	$ 8,610
Net assets at beginning of year		44,855	
Net assets at end of year		$ 87,812	

(Unaudited)

LOWER RUM RIVER WATER MANAGEMENT ORGANIZATION

STATEMENT OF CASH FLOWS
YEAR ENDED JANUARY 31, 2015

Cash flows from operating activities:		
Received from member cities	$	75,000
Received from customers		30,201
Received from other governments		1,072
Payments to suppliers for goods and services		(61,998)
Net cash provided by (used in) operating activities		44,275
Cash flows from investing activities:		
Investment earnings		33
Net increase in cash and investments		44,308
Cash and cash equivalents at beginning of year		81,544
Cash and cash equivalents at end of year	$	125,852
Reconciliation of operating income (loss) to net cash provided (used) by operating activities:		
Operating gain	$	42,957
Change in assets and liabilities:		
Accounts receivable		80
Due from other governmental units		304
Accounts payable		(1,793)
Deposits		2,760
Total adjustments		1,351
Net cash provided by operating activities	$	44,308

Appendix B: Implementation of Watershed Management Plan Summary

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Lower Rum River Watershed Management Organization Task Checklist

Key to Symbols X = Task completed Empty box = task planned but not yet completed Black box = Task not planned for that entity or at that time.

EDUCATION	2013						2014						2015						2016						2017						2018						2019						2020						2021					
Task	ACD	Andover	Anoka	Coon Rapids	LRRWMO	Ramsey	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other
a. **Newsletter** - Distribution of education material biannually, fostering water quality management practices in Community newsletters, specifically addressing wetland regulation from time to time.	WMO hires ACD to write newsltr articles that cities print																																																		
"X" when completed -- April	X	X	X	X	X	X		X	X	X	X																																							
"X" when completed -- August	X	X	X	X	X	X		X	X	X	X																																							
b. **Website** - Maintain and expand the WMO website for water resource management. In 2013 add wetland regulatory info. The WMO website will be linked to the Cities' websites.	Website overhauled.						Addition of wtld regulatory info on website																																															
"X" when completed	X	X	X	X	X	X	X				X																																								
c. **Volunteer Monitoring** - Solicit volunteers for water quality monitoring – Citizen Assisted Monitoring Program (CAMP)	Done- comm. College monitoring Sunfish Lk																																																	
"X" when completed	X			X			X				X																																							
d. **City Local Water Plan Education Program** - Member communities shall develop a public education program as part of their local plan development. May include newsltrs, door hangers, catch basin stenciling, cable TV, etc																																																		
"X" when completed		X	X		X			X	X	X																																								
e. **Wetland Education** - Develop a general information packet and neighborhood specific information regarding water resource management, including wetlands.	Completed by ACD for WMO																																																		
"X" when completed	X			X			X				X																																							
e. **Continued Wetland Education** - Continue the distribution of the information packet to new property owners through the Cities' new resident packet information																																																		
"X" when completed																																																		

EDUCATION	2013						2014						2015						2016						2017						2018						2019						2020						2021					
Task	ACD	Andover	Anoka	Coon Rapids	LRRWMO	Ramsey	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other
f. **Wetland Ed Signage** - Design up to 30 wetland interpretive signs to educate the general public about the function and value of wetlands. WMO makes signs, cities post them in public areas adjacent to wetlands, preferably along trails.																																																			
"X" when completed																																																			
g. **Local Officials Workshop** - Conduct local official workshops for elected and appointed officials. Should specifically include info about wetland regulation.	Spring LRRWMO dinner mtg																																																		
"X" when completed					X																																													
Hi. **Local Events Exhibit - design** - Design and develop informational materials or display for local events exhibit to educate the public about function and values of wetlands, wetland regulations.																																																			
"X" when completed																	X																																		
h.ii **Local Events Exhibit - display-** Display the information created in the task above at local events such as home shows, city environmental events, etc																																																			
"X" when completed																																																			

Lower Rum River Watershed Management Organization Task Checklist

PLANNING, REPORTING AND ADMIN	2013						2014						2015						2016						2017						2018						2019						2020						2021					
Task	ACD	Andover	Anoka	Coon Rapids	LRRWMO	Ramsey	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other
a. **City Reports to WMO** - Member communities shall submit an annual status report by January 1 that describes the status of local plans and implementation of LRRWMO policies													2014 rpt from cities requested 1/2015																																			
"X" when completed		X	X	X		X		X	X	X																																						
b. **Annual Reporting to State**. Submit annual reports to BWSR and the State Auditor.	ACD was hired to prepare reports for WMO																																															
"X" when completed	X				X		X				X																																					
c. **LRRWMO Plan Update** – 4th Generation Plan																																															
"X" when completed																																															
d. **City Local Water Plans** - Member communities shall update their local water resource management plans to be consistent with the WMO plan. WMO must review and approve local plans.	CR left WMO. Andover given extension, Ramsey underway						Anoka plan in 2nd review and anticipated to be approved 4-2015. Andover plan in 1st review, Ramsey plan draft anticipated 5-2015																																									
"X" when completed																																															
e. **WMO Plan Review** - LRRWMO will annually review its Watershed Management Plan to ensure it reflects current goals																																															
"X" when completed					X					X																																						
f. **JPA** - Update LRRWMO Joint Powers Agreement, which expires 1/1/2015							Completed 9/2014						Done																																					
"X" when completed								X	X	X	X			X	X	X	X																															
g. **Solicit Bids** - LRRWMO will solicit bids for professional services (solicit proposals for work to occur in the following year)							11 and 12 2014 selected engineer and attorney																																										
"X" when completed											X																																					

Lower Rum River Watershed Management Organization Task Checklist

WATER MONITORING AND IMPROVEMENT	2013						2014						2015						2016						2017						2018						2019						2020						2021					
Task	ACD	Andover	Anoka	Coon Rapids	LRRWMO	Ramsey	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other
a. **Volunteer Monitoring** - Solicit volunteers for water quality monitoring – Citizen Assisted Monitoring Program (CAMP)	Done- comm. College monitoring Sunfish Lk																																																		
"X" when completed	X				X		X				X																																							
b. **Professional Water Monitoring** - LRRWMO will work with the ACD with water quantity and quality programs. See separate sheet of planned LRRWMO monitoring and/or table 9 in watershed plan.	On track with monitoring plan.						On track with monitoring plan. Deleted some sites being monitored by MPCA.																																															
"X" when completed	X				X		X				X																																							
c. **Anoka Dam** - LRRWMO will work with member cities in the maintenance and control of the Rum River Dam							City of Anoka working on resolution accepting dam responsibilities.																																															
"X" when completed		X	X		X	X																																											
d. **Groundwater** - LRRWMO will develop and implement a plan to track groundwater levels	Task is better done by regional entities. No WMO action.						DNR is doing this task.																																														
"X" when completed			X						na	X																																								
e. **Grant Matching Fund** - LRRWMO will develop/build a fund to match future grants for projects																																																		
"X" when completed			X						X																																									

Lower Rum River Watershed Management Organization Task Checklist

REGULATION	2013						2014						2015						2016						2017						2018						2019						2020						2021					
Task	ACD	Andover	Anoka	Coon Rapids	LRRWMO	Ramsey	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other	ACD	Andover	Anoka	Ramsey	LRRWMO	Other
a. **City Wetland Protection BMPs** - Member communities shall develop and implement wetland protection BMPs included in local Water Resource Plan. Should be consistent with WMO wetland standards							Underway in each community via local water planning. Ordinance adoption comes after plan approval.																																													
"X" when completed																																																	
b. **City Erosion Ordinance** -Member communities shall adopt an erosion control ordinance				Coon Rapids is done (T. Haas 9/6/13)			Local water planning underway. Ordinance updates come after plan approval.																																													
"X" when completed				X																																												
c. **City Floodplain Ordinance** - Member communities shall adopt, at a minimum, floodplain ordinances conforming to MN Rules 6120.5000				Coon Rapids is done (T. Haas 9/6/13).			Cities are awaiting local water plan completion and FEMA map updates																																													
"X" when completed				X																																												

Appendix C:
Newsletter Articles

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CLEAN WATER STARTS AT HOME
TIP #5: LAWN CARE

Did You Know

Your lawn care can create water pollution!

Tips from the Pros

Leave the clippings as you mow! Grass can use the nutrients from the clippings especially on sandy soil. Do not haul them into a pile; just leave them as they fall. Piles don't compost quickly and so can create erosion and mosquito breeding sites.

While mowing, blow the clippings onto lawn and off the street, driveway, and sidewalk. Then, you don't need to sweep 'em up as much. Please don't hose them off, either. That's our drinking water going down the drain!

Mow at 3 inches! Adjust your mower to leave grass 3 inches high (a little wider than a dollar bill). Taller lawns use less water, handle heat stress better and compete with weeds better. Then, cut after 1 inch of growth. Or, get a no-mow or low-mow grass seed mix for a low maintenance lawn.

These simple practices will help minimize pollution. Please do your part; every little bit helps.

Clean Streets, Clean Water

For more information contact Kameron Kytonen, Andover Natural Resources Technician, (763) 767-5137 or Coon Creek Watershed District: (763) 755-0975 www.cooncreekwd.org.

SALVATION ARMY DONATION DROP BOX

The Salvation Army has placed a Donation Drop Box at the Recycling Center on Tower Drive. Donate your gently used clothing and housewares. If you want a home pick-up for larger items, call (612) 332-5855. It is very important that all items brought are clean and in good condition.

MAYOR & CITY COUNCIL FILINGS

Filings for the following offices will open Tuesday, July 29, 2014 at 8:00 a.m. and will close at 5:00 p.m., Tuesday, August 12, 2014:

Mayor 1 (Two-year term)
Council Members 2 (Four-year term)

Candidates must be eligible voters and reside in the City of Andover. A $5.00 filing fee shall be paid at the time of filing. Affidavits of candidacy are to be filed with the Deputy City Clerk at the Andover City Hall, 1685 Crosstown Boulevard NW.

PRIMARY ELECTION

A Primary Election will be held in the City of Andover on Tuesday, August 12, 2014. The polls will be open from 7:00 a.m. until 8:00 p.m. for the purpose of nominating candidates for federal, state, county, local and judicial offices.

The polling locations are:

Precinct #1	Hope Lutheran Church 16180 Round Lake Boulevard NW
Precinct #2	Grace Lutheran Church 13655 Round Lake Boulevard NW
Precinct #3	Riverdale Assembly of God Church 3210 Bunker Lake Boulevard NW
Precinct #4	Crooked Lake Elementary School 2939 Bunker Lake Boulevard NW
Precinct #5	Andover Christian Church 16045 Nightingale Street NW
Precinct #6	Prairie Oak Community Church 1657 161st Avenue NW
Precinct #7	Andover Community Center 15200 Hanson Boulevard NW
Precinct #8	Andover Community Center 15200 Hanson Boulevard NW
Precinct #9	Bunker Hills Activity Center 550 Bunker Lake Boulevard NW
Precinct #10	Andover Elementary School 14950 Hanson Boulevard NW

If you are unsure of where you vote, you can access the Secretary of State's website at www.sos.state.mn.us to find your correct polling place or call City Hall at (763) 755-5100. For more information about elections, go to the City's website or www.anokacounty.us/elections

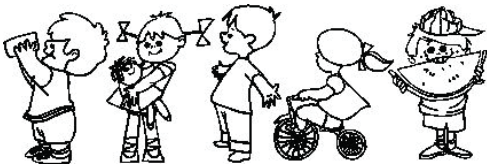
If you have not voted in Andover or have moved, you must first register before voting. A valid driver's license with your new address will allow you to register and vote. Please take care of this before Election Day. Minnesota State Law requires you to update your license within 30 days of moving.

Voters who prefer to cast their absentee ballot in person may vote at the city hall of the City in which they reside during regular office hours. The absentee ballot period for the August 12th Primary Election runs from June 27th through August 11th.

Head Start Now Enrolling

Head Start is a quality preschool program, serving children and families in Anoka and Washington County. There is NO COST to families who participate in the program. Head Start provides educational, health, nutrition and social service assistance to children and their families who are income eligible. A variety of programs are available at no cost.

For more information and to obtain an application, call the Anoka/Washington County Head Start Program at 763-783-4300.



I Stepped in Something Squishy

I slowly lifted up my foot
And turned it to inspect
I feared the worst was stuck to me
But it was not what I'd expect
What I stepped in was a wetland
To which I do not object
Wetlands serve important functions
And deserve your full respect
They're home to critters and cleanse the water
(Just disregard their sound effects)

If you step in something squishy, it may be a good thing – a wetland. Because of their values for flood protection, wildlife and water quality, wetlands have protections under state law. Before excavating, filling, or draining, please check with local officials.

You can help wetlands and critters by leaving an unmowed buffer around the edges.

Published by the Lower Rum River Watershed Management Organization, courtesy of the Anoka Conservation District.

Summer 2014 Anoka CityView Newsletter

Water Conservation
Watering Restrictions

Please be advised that the City of Anoka has odd/even watering restrictions when using City supplied water from June 1 to September 1 each year.

Properties having odd-numbered mailing addresses may only water on odd-numbered days, and properties having even numbered addresses may only water on even-numbered days.

In addition, no watering is allowed from 10 a.m. - 7 p.m., regardless of mailing address. Thank you for your cooperation.

New City Watering Ordinance

The City of Anoka needs to produce an adequate water supply for everyday use in homes and businesses as well as provide an adequate water supply for fire protection. During high demand periods there are times when the water supply has diminished to low levels.

The first consideration should be given to conservation. There has been a heightened awareness of environmental issues and an increased desire to conserve natural resources that are addressed in the City's watering policy. In addition to the odd/even policy, the City is restricting watering between the hours of 10 a.m. – 7 p.m. This is the period of time which creates the most evaporation and provides the least amount of benefit for the lawns and gardens. Evaporation rates during this period can be between 30 and 40 percent on summer days. Some studies have indicated that daytime watering may be damaging to the grass blades and plant leaves because the water droplets can act as small magnifying glasses causing them to burn.

All City residents should be responsible to comply with these restrictions. Upon any violation, the City may issue written warnings and administrative fines.

Complete information on the City's Water Conservation Policy and watering restrictions can be found at www.ci.anoka.mn.us, City Code, Chapter 66, Article IV, Section 66-131, or by calling the Public Services Department at 763-576-2980.

2013 Drinking Water Report

The City of Anoka issues results of monitoring done on its drinking water. For the recent report, visit www.ci.anoka.mn.us and click on the Drinking Water Report tab on the right-hand column of the site.

I Stepped in Something Squishy

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And turned it to inspect
I found the ooze was stuck to me
But it was not as I'd expect
What I stepped in was wetland
To which I do not object
Wetlands serve important functions
And deserve your full respect
They're home to critters and cleanse the water
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A Message from the Lower Rum River Watershed Management Organization

You can help wetlands and critters by leaving an un-mowed buffer around the edges. www.LRRWMO.org

Spring 2014 Anoka CityView Newsletter

Library Focus
Free Technology and Computer Help

Did you know you can get free technology and computer help at the library? Just stop by the Rum River branch of Anoka County Library, on Mondays and Fridays from 1 p.m.-4 p.m., for "Tech Time." No registration is required and a library staff person will be there, in our computer lab, to assist with technology/computer questions on a first-come, first-served basis.

How exactly can Tech Time help? The Tech Time expert can assist you with a wide range of technology issues, such as: downloading library eBooks, eAudioBooks, and digital magazines; using the library online catalog and databases; setting up email; applying for jobs online; creating resumes; using Microsoft programs like Word, Excel, and PowerPoint; working with digital photos; answering computer questions; and applying for unemployment and health insurance. And if we can't answer a specific question for you, we'll find resources that can.

For more information, please contact Rum River Library, 4201 6th Ave. NW, Anoka, 763-576-4695, or visit **www.anokacountylibrary.org**.

Ride the Northstar to Target Field

The Northstar Line offers fast, reliable service to Target Field to every Minnesota Twins home game this season! Hop on and cheer the Twins to victory without the hassle of traffic or parking costs. Riding the train to Twins games is popular, so plan to arrive at the Anoka station well before your scheduled departure. Allow yourself plenty of time to park, buy your rail ticket and board the train without rushing.

The Anoka Northstar station is located at 2718 4th Avenue with a new 3-level parking ramp providing 344 free parking stalls and a new pedestrian overpass. Ticket machines are located at the station and take cash or credit cards. For the complete schedule and information on fares, call Metro Transit at 612-373-3333 or visit **www.metrotransit.org/northstar**.

Commuter Challenge is now Switch My Trip

Anoka County TMO Commute Solutions

The 2014 Commuter Challenge is getting an update: it is now Switch My Trip. Beginning April 1, participants who opt to switch out a drive alone trip - commuting to and from work, running errands, shuttling kids to events, attending a concert or game - and instead use transit, car/vanpool, bicycle, walk or telework, are eligible to participate!

The campaign runs April 1-June 30, 2014. Watch for more details at **www.Commute-Solutions.org** or call 763-862-4260 for registration links and prize details.

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.

Appendix D:
2014 Work Results

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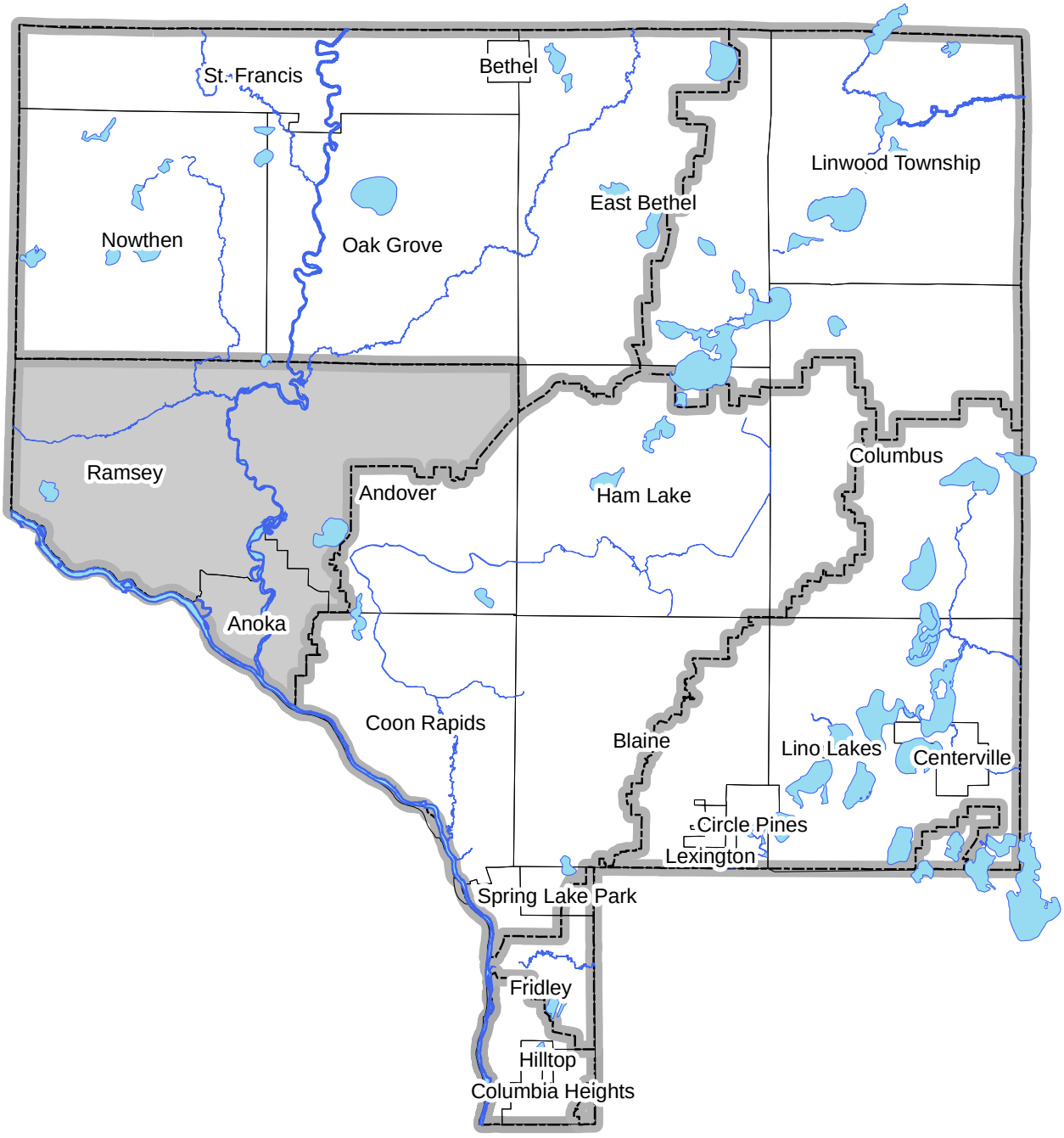
Excerpt from the
2014 Anoka Water Almanac

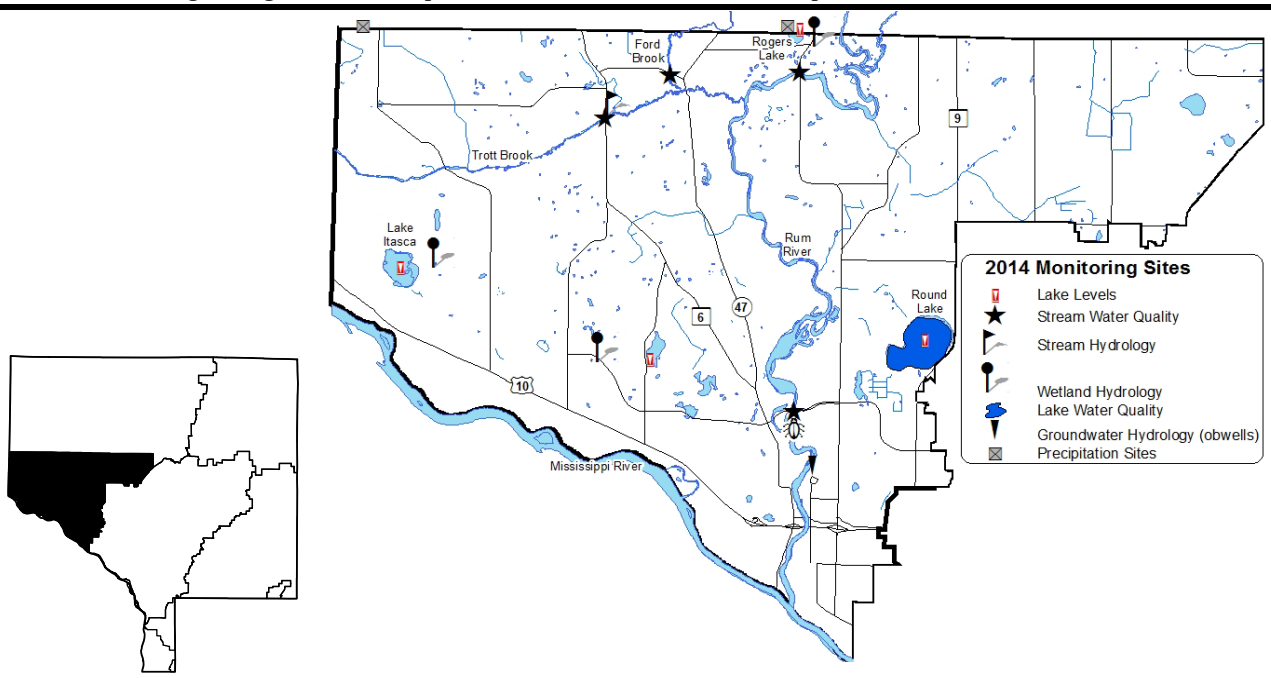
Chapter 4: Lower Rum River Watershed



Prepared by the Anoka Conservation District

CHAPTER 4:
LOWER RUM RIVER WATERSHED

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).

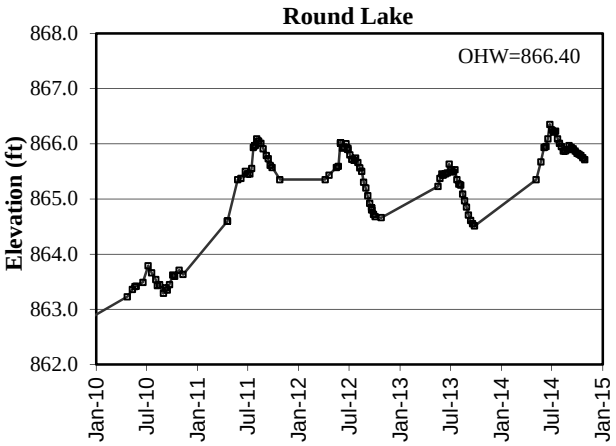
Purpose: To understand lake hydrology, including the impact of climate or other water budget changes. These data are useful for regulatory, building/development, and lake management decisions.

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

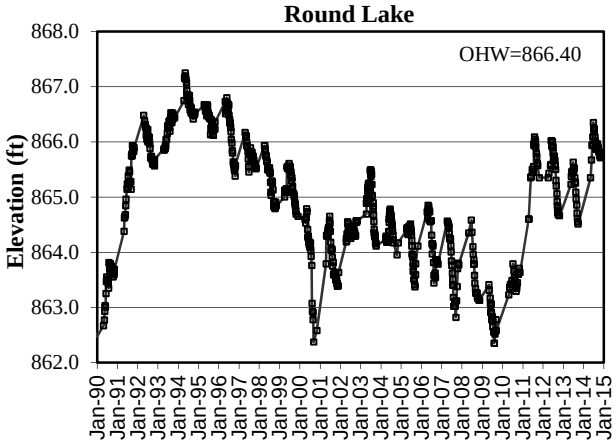
Results: Lake levels were measured by volunteers throughout the 2014 open water season. Lake gauges were installed and surveyed by the Anoka Conservation District and MN DNR. Lakes had sharply increasing water levels in spring and early summer 2014 when very heavy rainfall totals occurred. Rainfall tapered off later in the year and lake levels fell accordingly.

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.

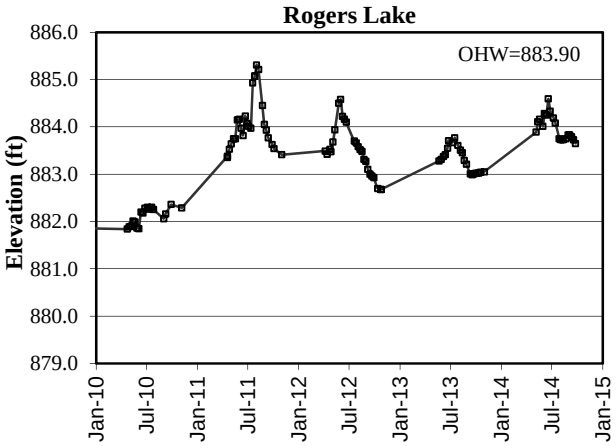
Round Lake Levels – last 5 years



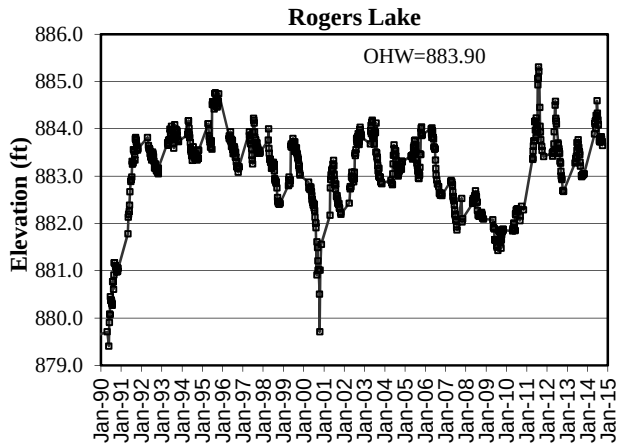
Round Lake Levels – last 25 years



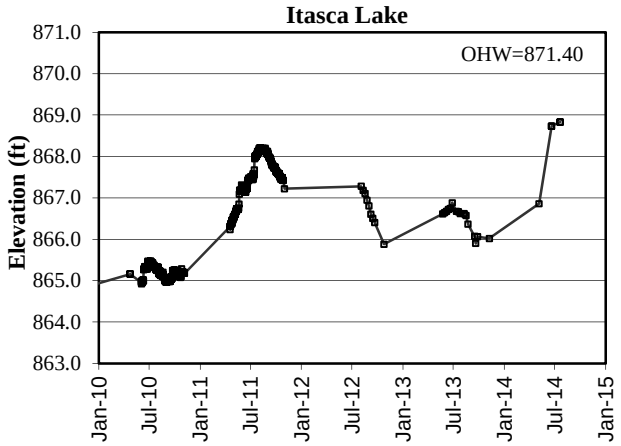
Rogers Lake Levels – last 5 years



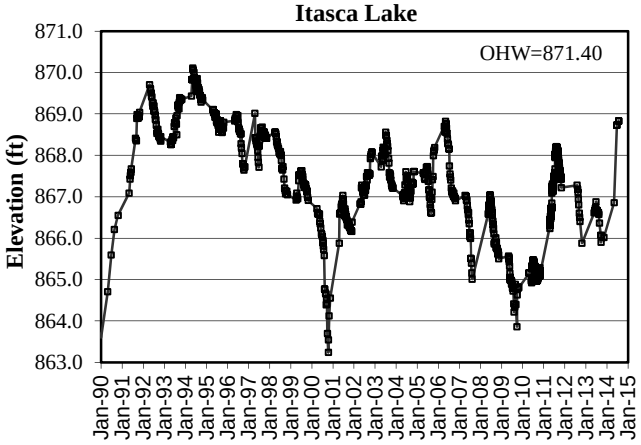
Rogers Lake Levels – last 25 years



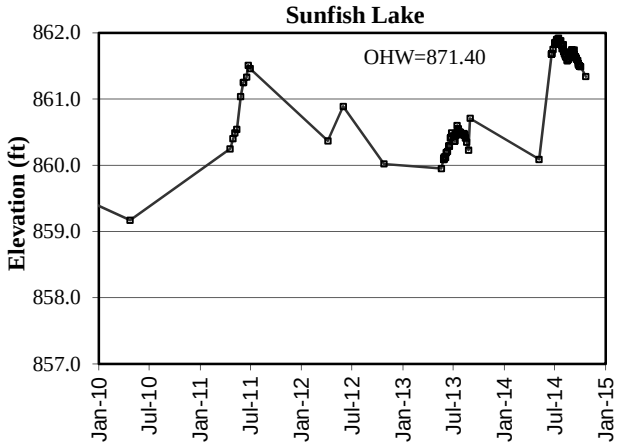
Itasca Lake Levels – last 5 years



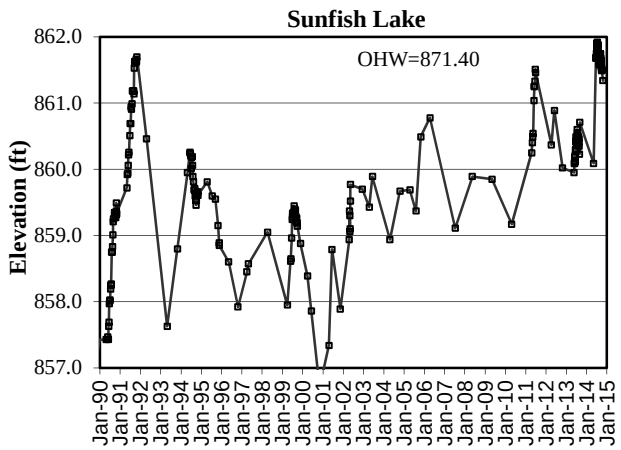
Itasca Lake Levels – last 25 years



Sunfish/Grass Lake Levels – last 5 years



Sunfish/Grass Lake Levels – last 25 years



Lake Water Quality

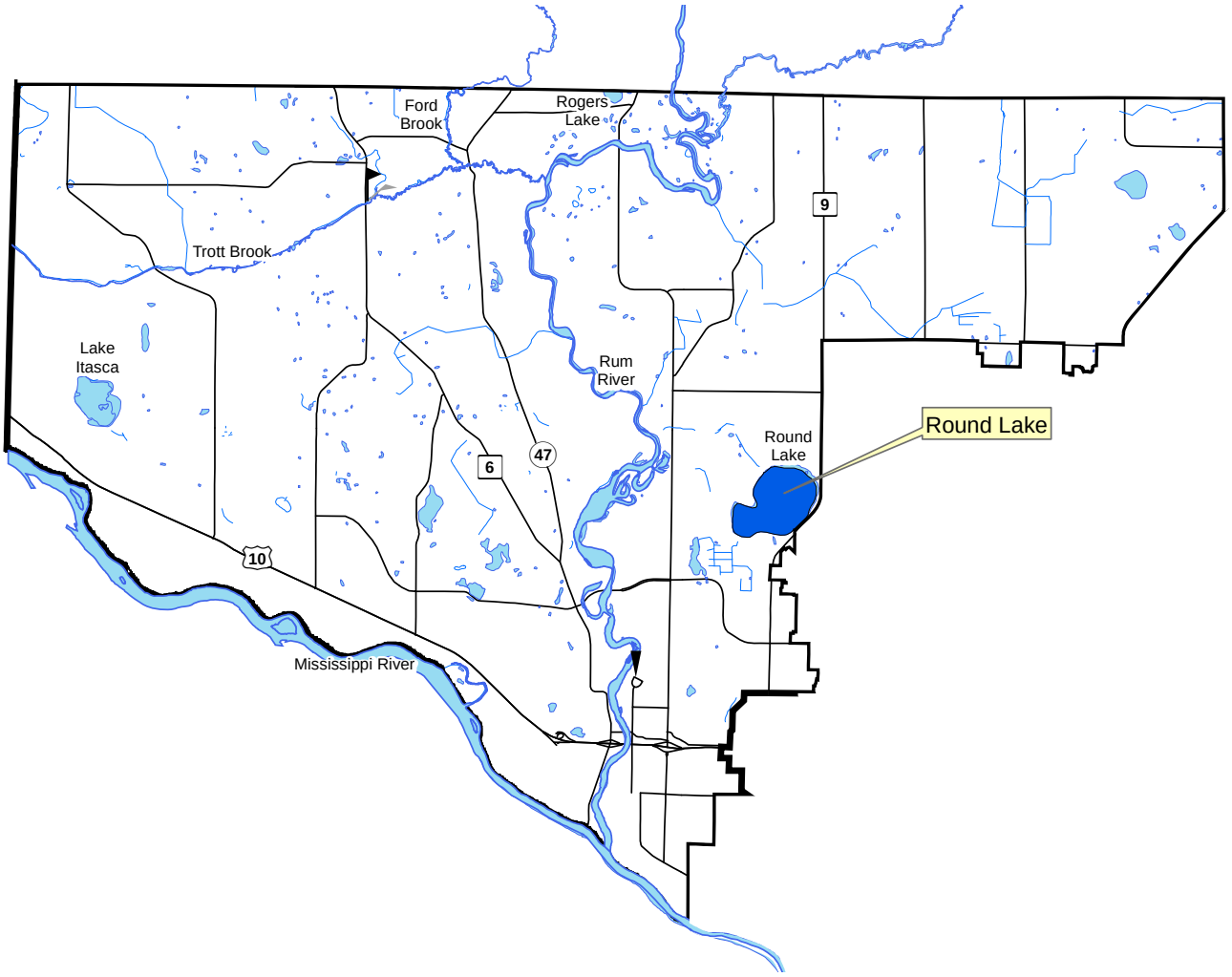
Description: May through September every-other-week monitoring of the following parameters: total phosphorus, chlorophyll-a, secchi transparency, dissolved oxygen, turbidity, temperature, conductivity, pH, and salinity.

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.

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.

2014 Results

In 2014 Round Lake's water quality was very good compared with other lakes in this region (NCHF Ecoregion) receiving an overall A letter grade. The average of total phosphorus (15.0 ug/L) and chlorophyll *a* (1.8 ug/L) were the lowest on record. Secchi transparency was 10.2 feet, which is the second best ever observed. It's important to note that the true Secchi transparency average was deeper than 10.2 feet, one reading was not used in this average since clarity exceeded the maximum depth of the lake.

Phosphorus and algae were fairly consistent without indication of any seasonal fluctuation. Additionally, results were very low. This could be the product of abnormally high rainfall early in the season, which resulted in higher than average lake water levels throughout the entire season.

Trend Analysis

Ten years of water quality monitoring have been conducted by the Anoka Conservation District (1998-2000, 2003, 2005, 2007, and 2009-2010, 2012, 2014), 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 and 2014 no significant water quality changes are apparent ($F_{2,7} = 0.41$, $p = 0.68$).

Discussion

2014 was the second consecutive monitoring year which observed 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 both 2012 and 2014 water levels recovered substantially 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.

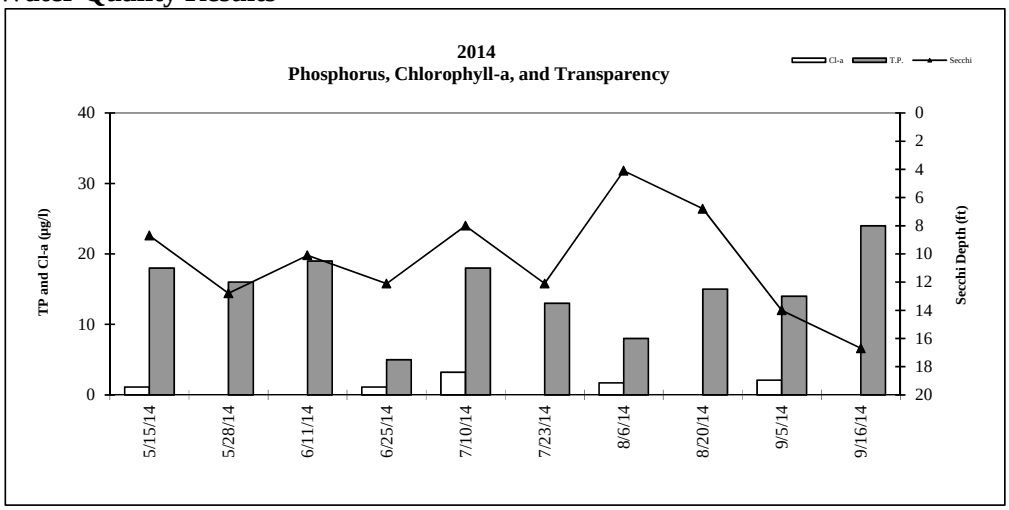
Conservation of groundwater must become a regional and local priority, least there will be negative impacts on lakes. In fact many negative impacts are already being documented. At Round Lake, where water quality appears linked to water levels, this issue is very important.

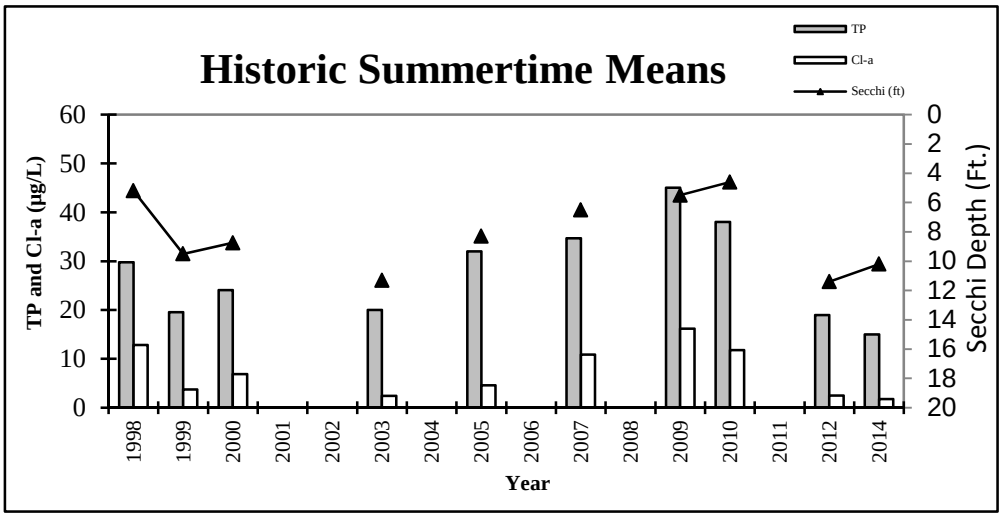
2014 Round Lake Water Quality Data

Round Lake 2014 Water Quality Data	Units	R.L.*	5/15/2014 14:15 Results	5/28/2014 13:58 Results	6/11/2014 14:10 Results	6/25/2014 13:30 Results	7/10/2014 15:00 Results	7/23/2014 13:15 Results	8/6/2014 14:15 Results	8/20/2014 15:55 Results	9/5/2014 15:10 Results	9/16/2014 14:15 Results	Average	Min	Max
pH		0.1	8.32	8.02	8.4	8.63	8.7	8.86	9.34	8.46	8.34	8.99	8.61	8.02	9.34
Conductivity	mS/cm	0.01	0.327	0.331	0.324	0.289	0.299	0.311	0.305	0.350	0.376	0.334	0.325	0.289	0.376
Turbidity	NTU	1	1.4	0	0.2	3.1	0.9	7.7	0	0	0	0.8	1	0	8
D.O.	mg/L	0.01	12.19	8.44	10.31	9.24	8.87	8.33	10.07	8.36	8.74	11.65	9.62	8.33	12.19
D.O.	%	1	114%	95%	123%	113%	102%	106%	129%	108%	102%	121%	111%	95%	129%
Temp.	°C	0.1	13	23	23	25	26	26	26.0	26.4	21.2	16	22.5	12.5	26.5
Temp.	°F	0.1	54.5	72.8	74.1	76.1	78.0	79.7	78.8	79.4	70.1	61.0	72.4	54.5	79.7
Salinity	%	0.01	0.16	0.16	0.16	0.14	0.15	0.15	0.15	0.17	0.18	0.16	0.16	0.14	0.18
Cl-a	ug/L	0.5	1.1	<1	<1	1.1	3.2	<1	1.7	<1	2.1	<1	1.8	1.1	3.2
T.P.	mg/L	0.010	0.018	0.016	0.019	0.005	0.018	0.013	0.008	0.015	0.014	0.024	0.015	0.005	0.024
T.P.	ug/L	10	18	16	19	5	18	13	8.0	15.0	14.0	24	15.0	5.0	24.0
Secchi	ft	0.1	8.7	12.8	10.1	12.11	8	12.1	4.1	6.8	>14"	16.7	10.2	4.1	16.7
Secchi	m	0.1	2.65	3.90	3.08	3.69	2.44	3.69	1.2	2.1	>4.3	5.09	3.1	1.2	5.1
Physical			1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Recreational			1.0	1.0	1.0	1.0	1.0	1.0	3.0	1.0	1.0	1.0	1.2	1.0	3.0

*reporting limit

Round Lake Water Quality Results





Round Lake Historic Summertime Mean Values

Agency	ACD	ACD	ACD	ACD	ACD	ACD	ACD	ACD	ACD	ACD
Year	1998	1999	2000	2003	2005	2007	2009	2010	2012	2014
TP	29.8	19.6	24.1	20.0	32.0	34.7	45.0	38.0	19.0	15.0
Cl-a	12.8	3.7	6.9	2.4	4.6	10.9	16.2	11.8	2.5	1.8
Secchi (n	1.60	2.90	2.67	3.40	2.50	2.00	1.70	1.40	3.50	3.10
Secchi (ft	5.2	9.5	8.8	11.3	8.3	6.5	5.5	4.6	11.4	10.2

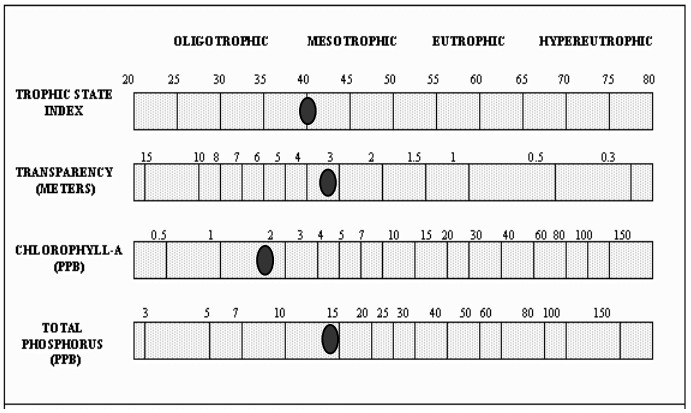
Carlsons trophic state indices

TSIP	53	47	50	47	54	55	59	57	47	43
TSIC	56	44	49	39	46	54	58	55	40	36
TSIS	53	45	46	42	47	50	52	55	42	44
TSI	54	45	48	43	49	53	56	56	43	41

Round Lake Water Quality Report Card

Year	1998	1999	2000	2003	2005	2007	2009	2010	2012	2014
TP	B	A	B	A	B	C	C	C	A	A
Cl-a	B	A	A	A	A	B+	B	B	A	A
Secchi	C	B	B	A	B	C	C	C	A-	A
Overall	**B**	**A**	**B**	**A**	**B**	**C**	**C**	**C**	**A**	**A**

Carlson's Trophic State Index



Stream Water Quality - Chemical Monitoring

Description: The Anoka Conservation District (ACD) is conducting Surface Water Assessment Grant (SWAG) monitoring for the MPCA in 2013 and 2014. Monitoring events are scheduled May through September for of the following parameters: total suspended solids, chlorides, sulfate, hardness, calcium, magnesium, nitrogen-ammonia, total kjeldahl nitrogen, nitrate & nitrite, volatile suspended solids, e. coli, total phosphorus, Secchi tube transparency, dissolved oxygen, turbidity, temperature, conductivity, pH, and salinity.

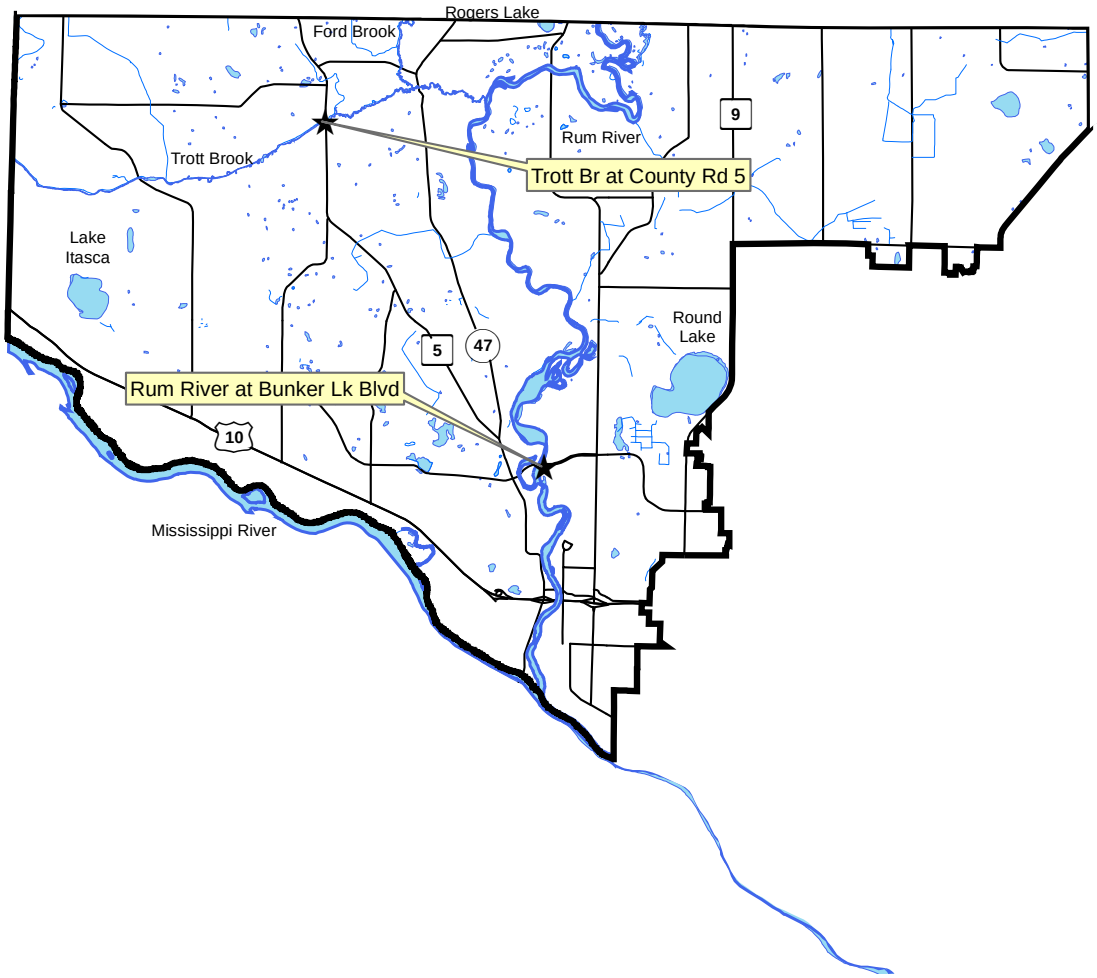
Purpose: To provide an initial assessment of water quality to be used in the completion of the Rum River Watershed Restoration and Protection Plan (WRAPP).

Locations: Trott Brook at County Road 5

Rum River at Bunker Lake Blvd

Results: Results are presented on the following pages.

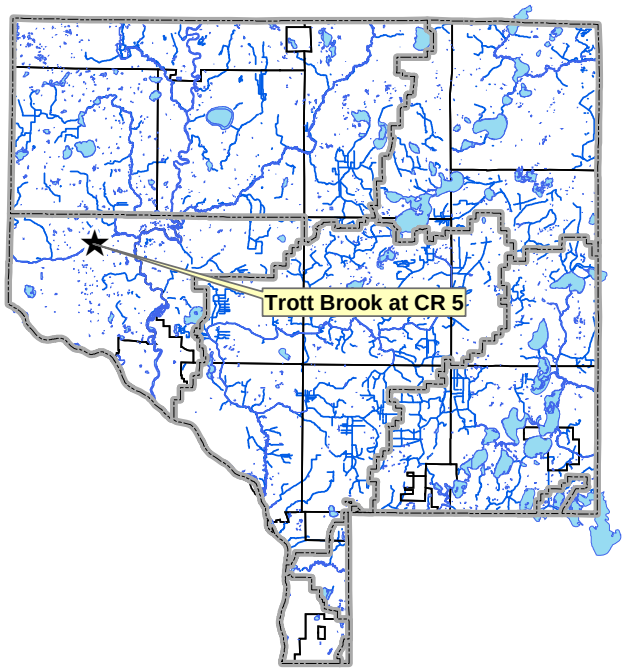
2014 Lower Rum River Monitoring Sites



Stream Water Quality Monitoring

TROTT BROOK

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



Years Monitored

Trott at Co. Rd. 5 1998, 2003, 2006, 2012, 2013, 2014

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.

Results and Discussion

This report includes data from 2014. A reason this monitoring is being performed is to gain additional historical data for the state to determine if the creek is meeting state water quality standards. That assessment process is part of the Rum River Watershed Restoration and Protection Project (WRAPP). The following is a summary of results.

- Dissolved constituents, as measured by conductivity, in Trott Brook was similar to other Anoka County streams. Conductivity averaged 0.482 mS/cm Maximum of 0.595 mS/cm and a minimum of 0.320 mS/cm).
- Phosphorous averaged higher the proposed MPCA water quality standard of 100 ug/l. If the proposed standard is approved Trott Brook often exceeds the limit, even during baseflow periods. Phosphorous in Trott Brook averaged 111 ug/l (maximum of 150 ug/l and a minimum of 78 ug/l).
- Turbidity stayed below the state standards each sampling event. Turbidity averaged 4.2 NTU (maximum of 10.2 NTU and a minimum of 0.00 NTU).
- pH was within the range considered normal and healthy for streams in this area. pH averaged 7.61 (maximum of 7.88 and a minimum of 7.35).
- Dissolved oxygen was periodically below the state water quality standard of 5 mg/L of dissolved oxygen (DO). Low DO in this creek was a known concern based on past monitoring. In 2014 Trott Brook 1 of the 6 DO measurements was below 5 mg/L and all measurements averaged 5.29 mg/l (maximum of 6.38 mg/l and a minimum of 3.69 mg/l). Measurements were not taken in early morning when DO is typically lowest.

For a significant number of the results below there are no current state standards. However, this data will be used as a baseline for future assessments of the watershed.

Trott Brook Water Quality Monitoring Results for 2014.

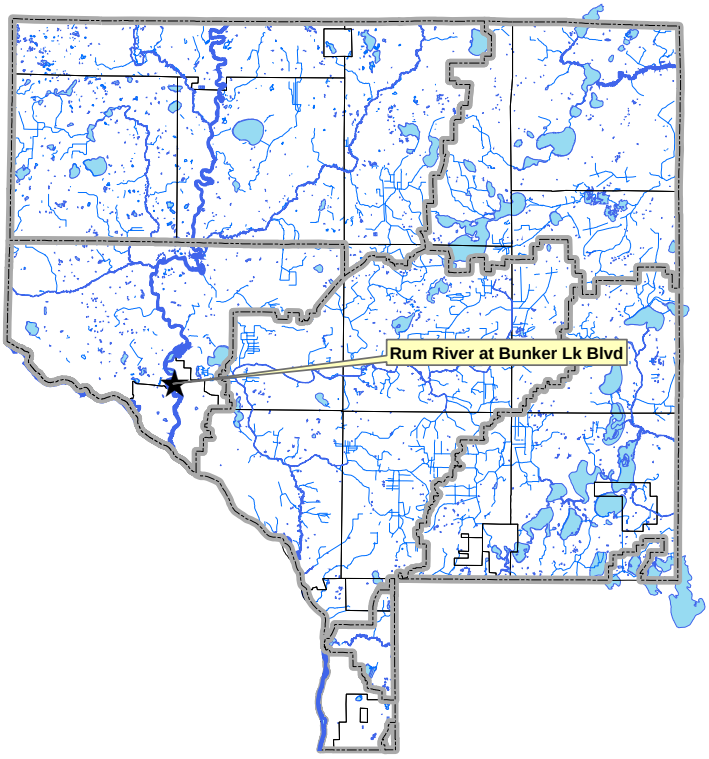
Grey column indicates date with E.coli duplicate.

Trott Brook at CR 5			6/2/2014	6/16/2014	7/2/2014	7/2/2014	7/21/2014	8/5/2014	8/26/2014			
	Units	R.L.*	Results	Results	Results	Results	Results	Results	Results	Average	Min	Max
pH		0.1	7.35	7.41	7.58		7.81	7.63	7.88	7.61	7.35	7.88
Conductivity	mS/cm	0.01	0.357	0.32	0.512		0.531	0.576	0.595	0.482	0.320	0.595
Turbidity	NTU	1	10.2	5.4	7.0		1.8	0.0	0.6	4.2	0.0	10.2
D.O.	mg/L	0.01	4.21	3.69	6.19		6.01	6.38	5.27	5.29	3.69	6.38
D.O.	%	1	36.2	35.4	69.8		70.9	69.3	56.4	56.3	35.4	70.9
Temp.	°C	0.1	20.0	18.3	19.8		22.0	18.7	17.6	19.4	17.6	22.0
Salinity	%	0.01	0.17	0.15	0.19		0.26	0.27	0.29	0.22	0.15	0.29
T.P.	ug/L	10	150	112	114		99		78	111	78	150
Chl-a	ug/L		3.2	1.1	<1		<1		2.6	2.3	<1	3.2
Ortho-P	mg/L		0.036	0.034	0.033		0.032		0.033	0.034	0.032	0.036
Secchi-tube	cm		>100	>100	92		>100	>100	>100	>100	92	>100
Nitrogen, Ammonia	mg/L		<0.16	<0.16	<0.16		<0.16		<0.16	<0.16	0.00	0.15
TKN	mg/L		2.1	1.5	1.2		1.4		1.2	1.48	1.20	2.10
Nitrate plus Nitrite	mg/L		<0.2	<0.2	0.38		0.26		0.36	0.33	0.26	0.38
BOD	mg/L		<2	<2	<2		<2		<2	<2.00	0.00	1.99
E coli	MPN		135	186	35.0	31.0	51.0	36.0	58.0	76.0	31.0	186.0
Appearance			3	3	1A		1A	1A	1A			
Recreational			2	2	2		2	2	3	2	2	3

Stream Water Quality Monitoring

RUM RIVER

Rum River at Bunker Lake Boulevard, Anoka STORET SiteID = S007-555



Years Monitored

Rum River at Bunker L Blvd 2013, 2014

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 at the pier located in River Bend Park, southwest of the Bunker Lake Boulevard bridge.

Results and Discussion

This report includes data from 2014. A reason this monitoring is being performed is to gain additional historical data for the state to determine if the river is meeting state water quality standards. That assessment process is part of the Rum River Watershed Restoration and Protection Project (WRAPP). The following is a summary of results.

- Dissolved constituents, as measured by conductivity, in the Rum River were low when compared to Anoka County streams. Conductivity averaged 0.293 mS/cm Maximum of 0.338 mS/cm and a minimum of 0.240 mS/cm).
- Phosphorous was typically higher than the proposed MPCA water quality standard of 100 ug/l, even during baseflow periods. Phosphorous results in the Rum River averaged 139 ug/l (maximum of 188 ug/l and a minimum of 73 ug/l).
- Turbidity was below the state standards each sampling event and averaged well below the standards. Turbidity averaged 8.35 NTU (maximum of 11.30 NTU and a minimum of 5.90 NTU).
- pH and dissolved oxygen were with the range considered normal and healthy for streams in this area. pH averaged 7.98 (maximum of 8.40and a minimum of 7.63). DO averaged 9.03 mg/l (maximum of 15.50 mg/l and a minimum of 7.36 mg/l).

For a significant number of the results below there are no current state standards. However, this data will be used as a baseline for future assessments of the watershed.

Rum River Water Quality Monitoring Results for 2014.

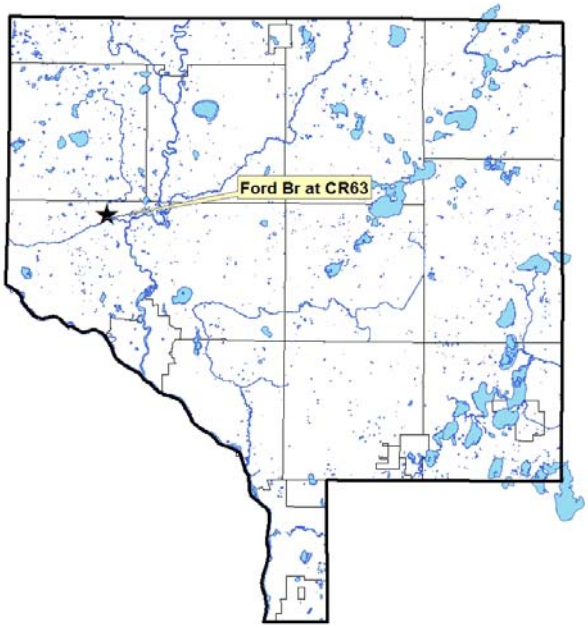
Grey column indicates date with QA/QC duplicates.

Rum River at Bunker Lk Boulevard			6/2/2014	6/16/2014	7/2/2014	7/2/2014	7/21/2014	8/5/2014	8/26/2014			
	Units	R.L.*	Results	Results	Results	Results	Results	Results	Results	Average	Min	Max
pH		0.1	7.63	7.63	7.77		8.11	8.4	8.33	7.98	7.63	8.40
Conductivity	mS/cm	0.01	0.240	0.247	0.296		0.306	0.331	0.338	0.293	0.240	0.338
Turbidity	NTU	1	8.4	5.9	9.8		11.3	6.3	8.4	8.35	5.90	11.30
D.O.	mg/L	0.01	15.5	7.36	7.50		7.44	8.07	8.30	9.03	7.36	15.50
D.O.	%	1	80.7	73.6	86.5		90.2	93.5	96.6	86.9	73.6	96.6
Temp.	°C	0.1	21.2	18.8	21.1		23.8	22.8	21.7	21.6	18.8	23.8
Salinity	%	0.01	0.11	0.12	0.14		0.15	0.16	0.16	0.14	0.11	0.16
T.P.	ug/L	10	162	165	183	188	113	73	90	139	73	188
Chl-a	ug/L		2.1	<1	2	1.1	1.7	3.4	2.6	2.2	1.1	3.4
Secchi-tube	cm		81	>100	83		91	>100	>100		81	>100
TKN	mg/L		1.2	1.1	1.2	1.4	1.5	0.8	1.2	1.20	0.80	1.50
Nitrate plus Nitrite	mg/L		0.2	0.22	0.23	0.25	0.3	0.24	0.39	0.26	0.20	0.39
E coli	MPN		172	46	28.0	31.0	50.0	50.0	77.0	64.9	28.0	172.0
Appearance			1	1	1		1	1	1	1	1	1
Recreational			3	3	3		2	3	2	3	2	3

Stream Water Quality Monitoring

FORD BROOK

At CR 63, Oak Grove



Background

Ford Brook originates at Goose Lake in north-western Anoka County and flows south. Ford Brook is a tributary to the Rum River. In north-western Anoka County it flows through the relatively undisturbed community of Nowthen before joining Trott Brook just prior to the Rum River.

Ford Brook is one of the smaller streams in Anoka County. The watershed is moderately developed with scattered single family homes, but continues to grow.

Results and Discussion

This report includes data from 2014. A reason this monitoring is being performed is due to the lack of historical data for the state to determine if the creek is meeting state water quality standards. That assessment process is part of the Rum River Watershed Restoration and Protection Project (WRAPP). The following is a summary of results.

- Dissolved constituents, as measured by conductivity, in Ford Brook was average when compared to similar Anoka County streams. Conductivity averaged 0.299 mS/cm (maximum of 0.394 mS/cm and a minimum of 0.128 mS/cm).
- Phosphorous averaged over the proposed MPCA water quality standard of 100 ug/l. If the proposed standard is approved, Ford Brook often exceeds the limit, even during baseflow periods. Phosphorous results in Ford Brook averaged 120.2 ug/l (maximum of 176 ug/l and a minimum of 54 ug/l).
- Suspended solids and turbidity both stayed below the state standards each sampling event and averaged well below the standards. Total suspended solids averaged 8.80 mg/l (maximum of 19 mg/l and a minimum of 3 mg/l). Turbidity averaged 15.86 NTU (maximum of 50.0 NTU and a minimum of 4.1 NTU). Water flow during the 50.0 NTU reading was extremely fast and turbulent due to abnormal rainfall.
- pH and dissolved oxygen were with the range considered normal and healthy for streams in this area. pH averaged 7.64 (maximum of 7.71 and a minimum of 7.58). DO averaged 9.58 mg/l (maximum of 14.73 mg/l and a minimum of 6.19 mg/l).

For a significant number of the results below there are no current state standards. However, this data will be used as a baseline for future assessments of the watershed.

FordBrook at CR63			4/28/2014	5/9/2014	6/2/2014	6/16/2014	7/2/2014			
	Units	R.L.*	Results	Results	Results	Results	Results	Average	Min	Max
pH		0.1	7.7	7.71	7.58	7.6	7.6	7.64	7.58	7.71
Conductivity	mS/cm	0.01	0.314	0.128	0.344	0.316	0.394	0.299	0.128	0.394
Turbidity	NTU	1	50.0	4.1	10.4	8.0	7.0	15.90	4.10	50.00
D.O.	mg/L	0.01	12.29	7.35	14.73	7.33	6.19	9.58	6.19	14.73
D.O.	%	1	97.7	70.8	75	71	69.8	76.9	69.8	97.7
Temp.	°C	0.1	4.7	11.6	20.5	18.5	19.8	15.0	4.7	20.5
Salinity	%	0.01	0.14	0.03	0.16	0.15	0.19	0.13	0.03	0.19
T.P.	ug/L	10	98	54	176	121	152	120	54	176
TSS	mg/L	2	19	4	10.0	3	8	8.8	3.0	19.0
Secchi-tube	cm		43	>100	83	97	92	>100	43	97
E coli	MPN				93.0	161.6	224.7	159.8	93.0	224.7
Appearance					1B	2	3			
Recreational					2	2	2	2	2	2

*reporting limit

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.

Biomonitoring

RUM RIVER

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

Last Monitored

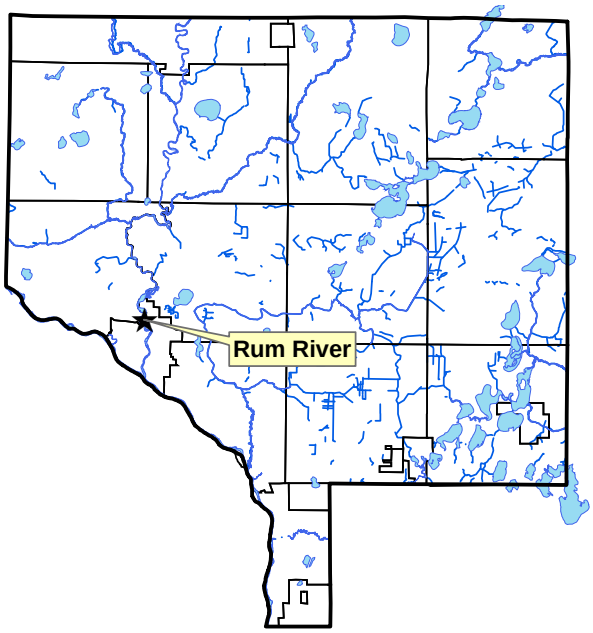
By Anoka High School in 2014

Monitored Since

2001

Student Involvement

128 students in 2014, approximately 738 since 2001



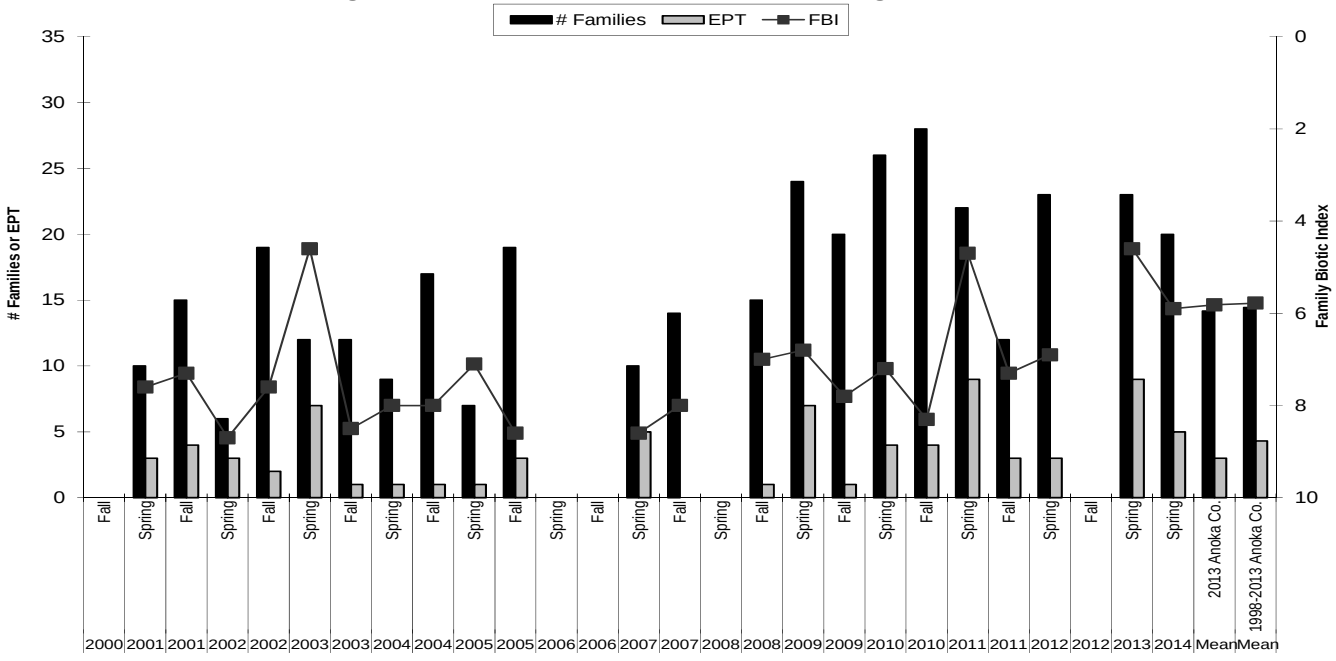
Background

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 has been conducted in a backwater rather than the main channel.

Results

Anoka High school classes monitored the Rum River in spring of 2014 with Anoka Conservation District (ACD) oversight. The results for spring 2014 were similar to previous years. More families, 20 in total, were found here than in any other Anoka County stream. This should be expected as most other sites are small streams and this is a larger river. The number of sensitive EPT families (5) and the FBI score (5.9) were the best in Anoka County and above the county averages.

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	2009	2009	2010	2010	2011	2011	2012	2013	2014	Mean	Mean
Season	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Spring	Spring	2014 Anoka Co.	1998-2014 Anoka Co.
FBI	6.80	7.80	7.20	8.30	4.70	7.30	6.90	4.60	5.90	5.8	5.8
# Families	24	20	26	28	22	12	23	23	20	13.2	14.6
EPT	7	1	4	4	9	3	3	9	5	3.0	4.3
Date	8-May	28-Sep	18-May	7-Oct	10-Jun	5-Oct	8-May	14-May	20-May		
sampling by	AHS	AHS	AHS	AHS	ACD	ACD	AHS	AHS	AHS		
sampling method	MH	MH	MH	MH	MH	MH	MH	MH	MH		
Mean # individuals	880	585	443	816	604	188	502	357	350		
# replicates	1	2	1	1	1	1	2	4	4		
Dominant Family	Siphlonuridae	Hyalellidae	Gastropoda	Hyalellidae	baetidae	hyalellidae	silphonuridae	Perlodidae	Siphlonuridae		
% Dominant Family	40.7	39.1	31.8	34.1	57.5	63.3	37.8	42.1	33.4		
% Ephemeroptera	48.2	0.9	8.1	0.9	59.3	11.2	44.9	19.4	57.8		
% Trichoptera	0.1	0	0	0.2	1	0	1.2	0.2	0.1		
% Plecoptera	2.6	0	0.5	0	3.8	0.5	0	42.6	0.5		

Supplemental Stream Chemistry Readings

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

Parameter	5/18/2010	10/7/2010	6/10/2011	10/5/2011	5/8/2012	5/13/2013	5/20/2014
pH	7.24	7.22	7.84	7.98	8.10	7.69	8
Conductivity (mS/cm)	0.207	0.399	0.296	0.296	0.205	0.181	0.237
Turbidity (NTU)	7	7	18	10	7	5	14.2
Dissolved Oxygen (mg/L)	6.93	na	6.85	7.91	7.87	10.00	13.05
Salinity (%)	0	0.01	0.01	0.01	0.00	0.00	0.11
Temperature (°C)	14.8	12.2	20.7	15.3	15.7	13.0	13.5

Discussion

Both chemical and biological monitoring indicate the good quality of this river. Habitat is ideal for a variety of stream life, and includes a variety of substrates, plenty of woody snags, riffles, and pools. Water chemistry monitoring done at various locations on the Rum River throughout Anoka County found that water quality is also good. Both habitat and water quality decline, but are still good, in the downstream reaches of the Rum River where development is more intense and the Anoka Dam creates a slow moving pool.

Historically, biomonitoring 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. In recent years more sampling occurred in the main channel which has more diverse habitat. This change in sampling explains the apparent improvement in the invertebrate community in recent years. In 2014 sampling returned to the backwater area, however extreme water levels likely altered its normal functions.

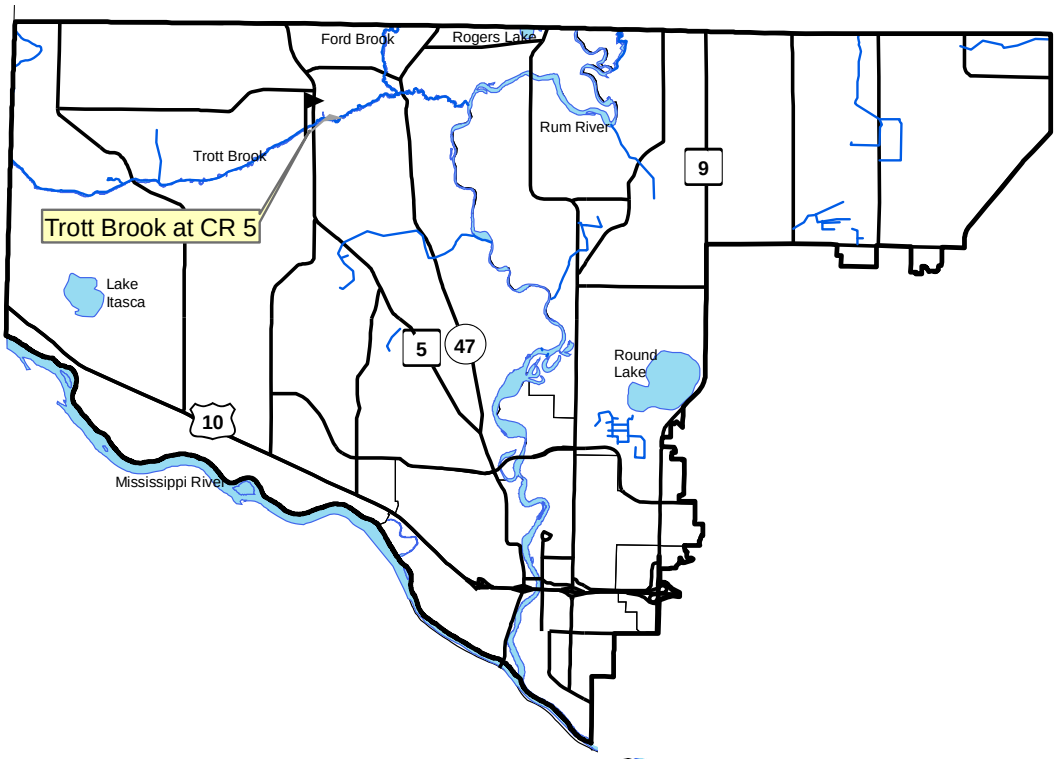
Stream Hydrology

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.

Locations: Trott Brook at County Road 5

Lower Rum River Watershed Stream Hydrology Monitoring Sites



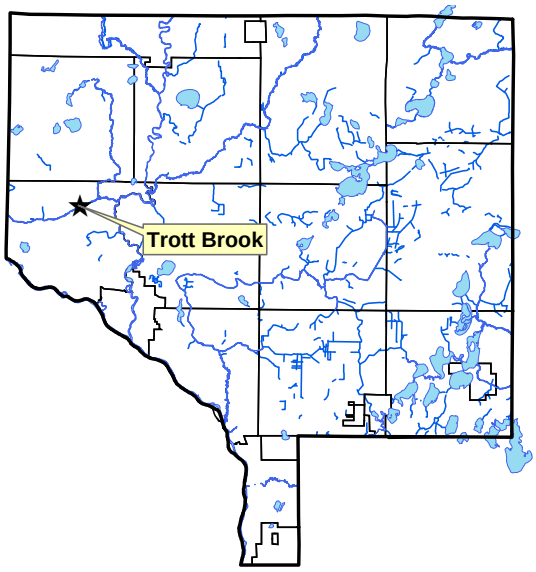
Stream Hydrology Monitoring

TROTT BROOK

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

Notes

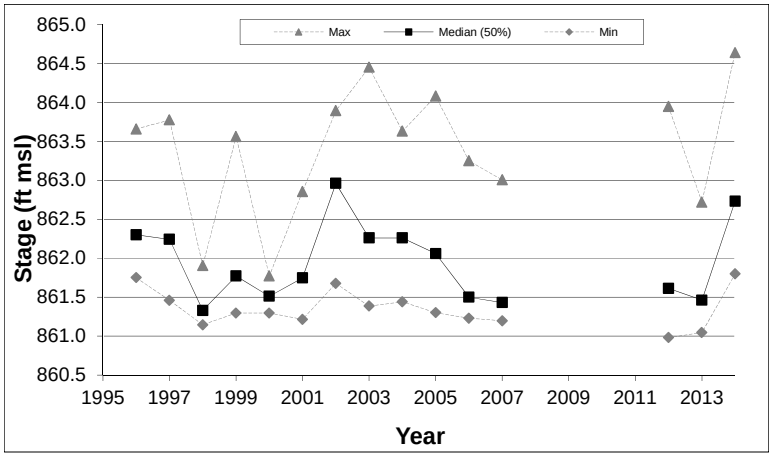
Trott Brook is a medium-sized creek that flows south through Sherburne County, paralleling the Anoka-Sherburne County boundary before turning east through the City of Ramsey where outlets to the Rum River. Overall, the watershed is rural or suburban residential, and areas within the watershed are undergoing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



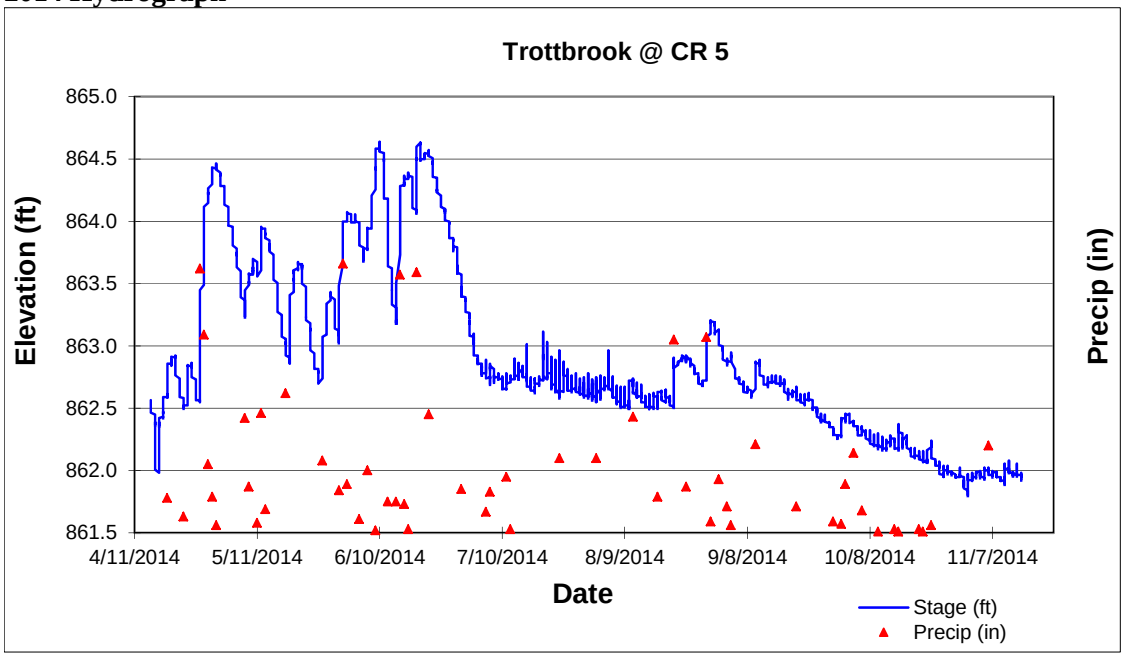
A rating curve for this site was developed in 2013:

Flow (cfs) = $16.39(\text{stage}-859)^2 - 63.716(\text{stage}-859) + 65.908$

Summary of All Monitored Years



2014 Hydrograph



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 23 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.

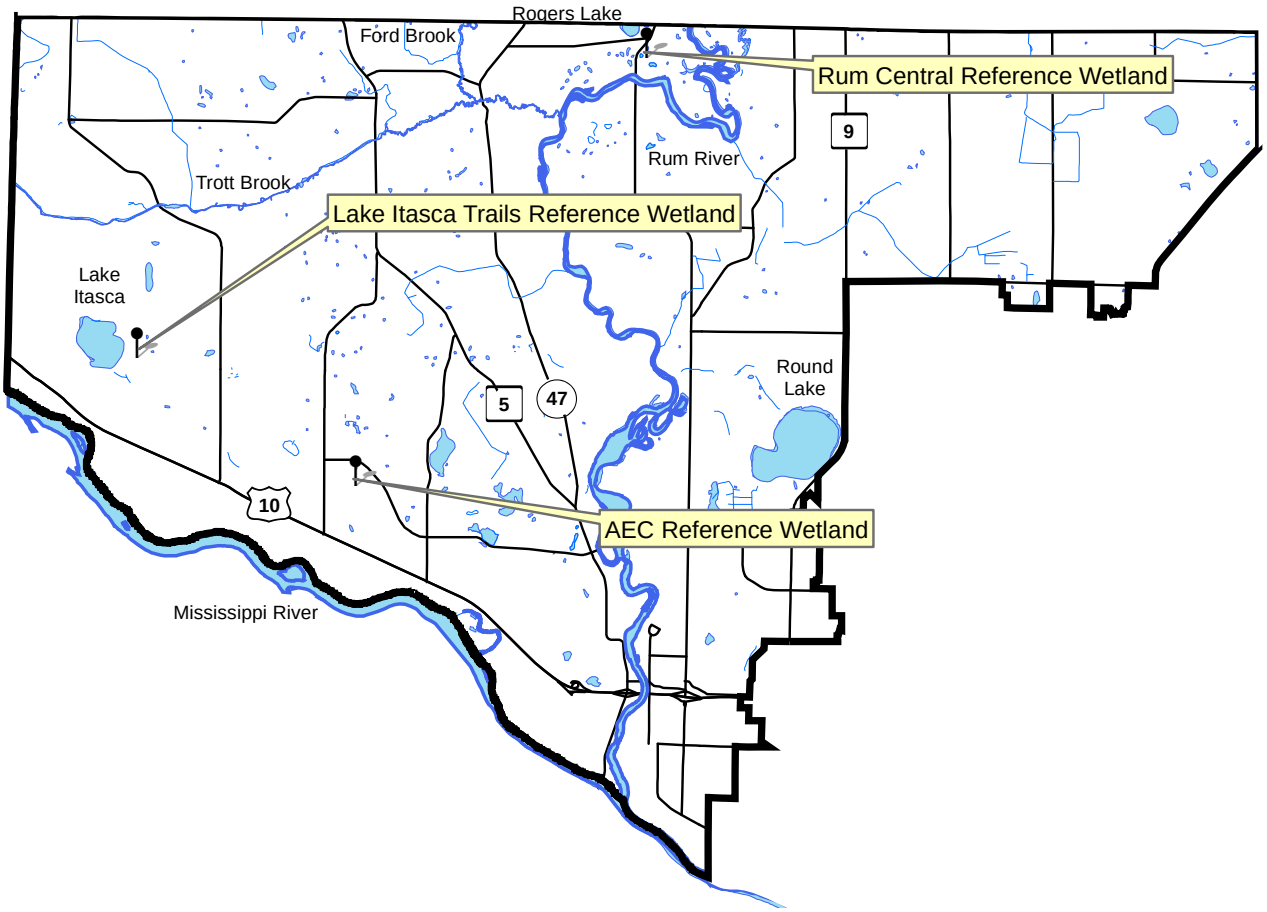
Locations: AEC Reference Wetland, Connexus Energy Property on Bunker Lake Blvd, Ramsey

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

Lake Itasca Trail Reference Wetland, Lake Itasca 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

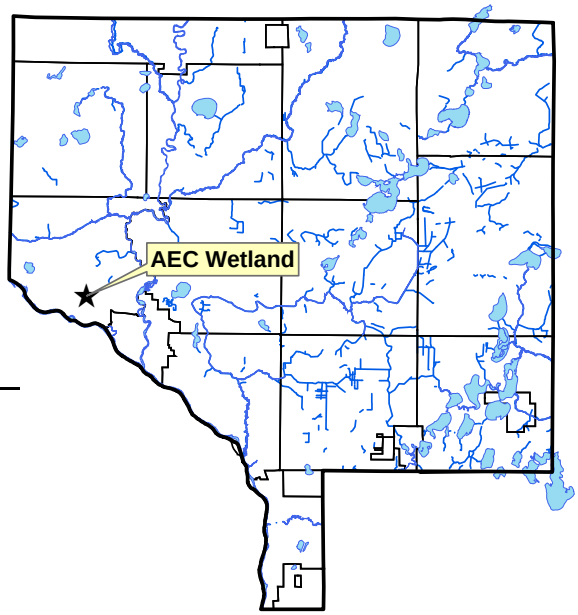


Wetland Hydrology Monitoring

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	-

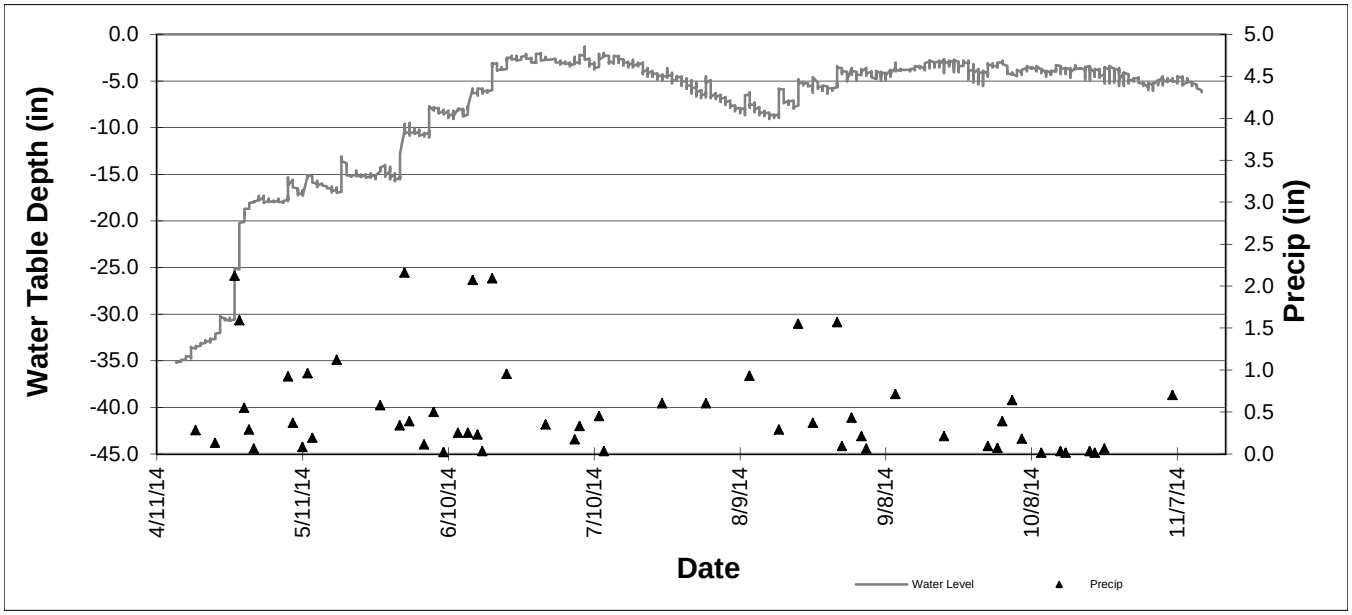
Surrounding Soils: Hubbard coarse sand

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.

2014 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

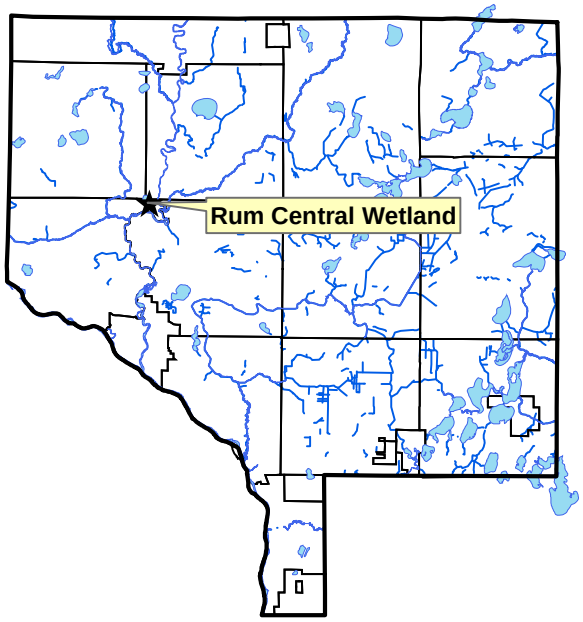
Monitored Since: 1997

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	-

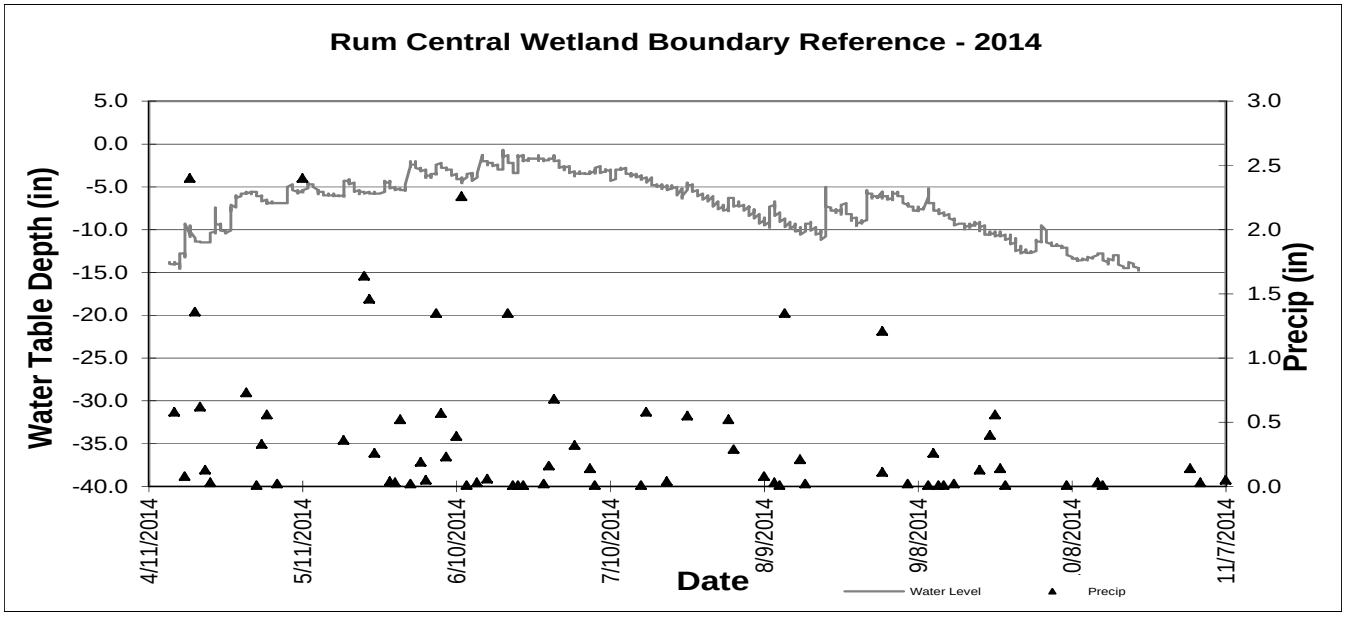
Surrounding Soils: Zimmerman fine sand

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.

2013 Hydrograph



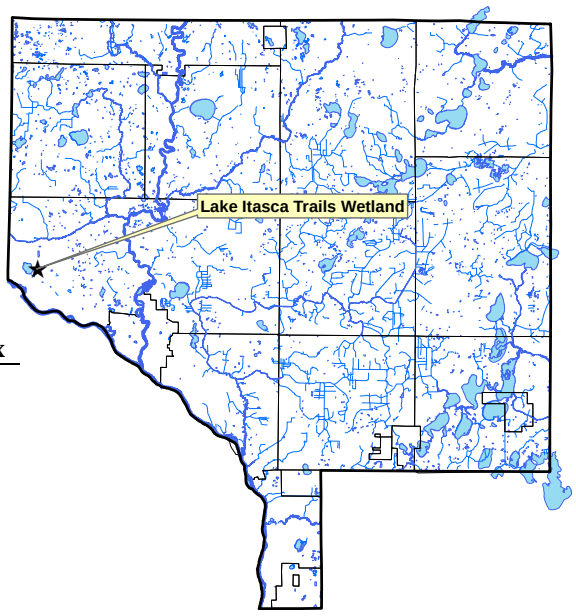
Well depth was 40 inches, so a reading of –40 indicates water levels were at an unknown depth greater than or equal to 40 inches.

Wetland Hydrology Monitoring

LAKE ITASCA TRAILS REFERENCE WETLAND

Lake Itasca Trails Park, Ramsey

Site Information



Monitored Since: 2013

Wetland Type: 2/6

Wetland Size: ~10 acres

Isolated Basin? Yes

Connected to a Ditch? No

Soils at Well Location:

Horizon	Depth	Color	Texture	Redox
A1	0-12	10yr2/0	Mucky sand	-
A2	12-20	10ry2/1	Sand	-
B1	20-36	10yr4/1	Sand and fine gravel	-
B2	36-48	10yr6/1	Sand and fine gravel	-

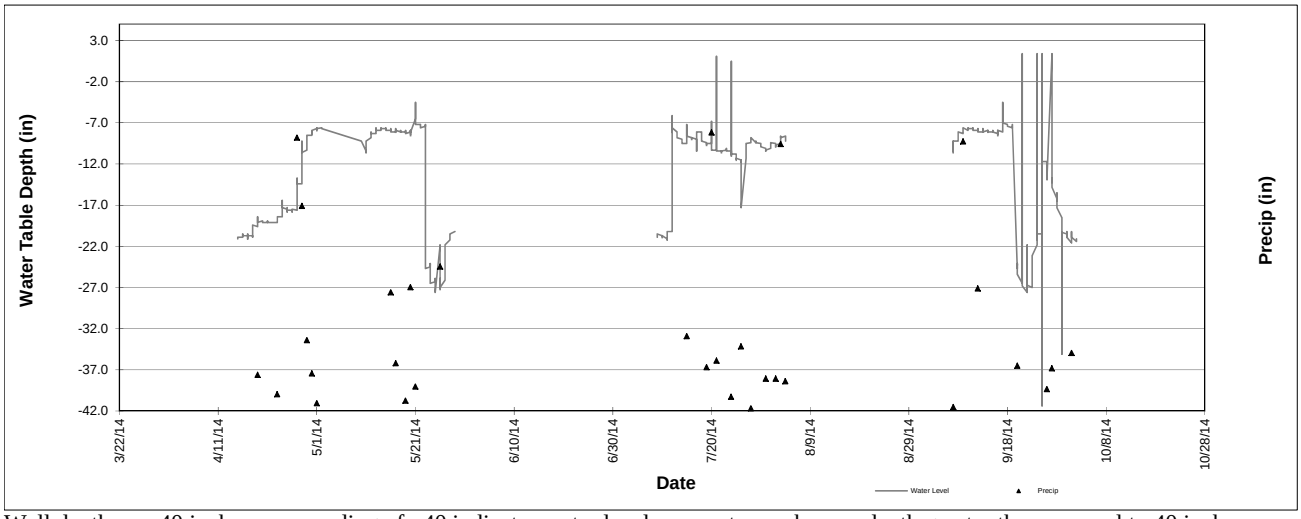
Surrounding Soils: Hubbard coarse sand

Vegetation at Well Location:

Scientific	Common	% Coverage
Carex stricta	Hummock Sedge	80
Phalaris arundinacea	Reed Canary Grass	20
Salix sp.	Willow	20
Rubus sp.	Bristle-berry	5

Other Notes: Well is located about 10 feet east and about 6 inches downslope of the wetland boundary. DNR Public Water Wetland 2-339.

2014 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. Equipment deployed at this site experienced a multitude of malfunctions. Data should be interpreted accordingly.

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 reported in the year they are installed. No projects were installed in 2014.

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
2013 LRRWMO Contribution	+	$1,000.00
2013 Expense – Geldacker Mississippi Riverbank	-	$1,431.20
2014 LRRWMO Contribution	+	$2,050.00
Fund Balance		**$2,050.00**

Newsletters

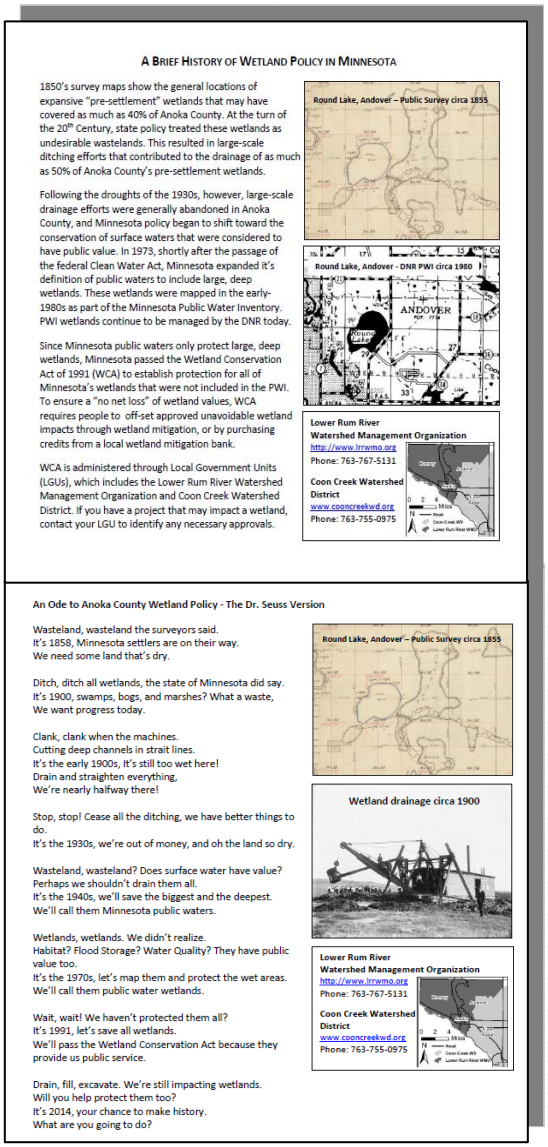
Description: The Lower Rum River Watershed Management Organization (LRRWMO) contracted the Anoka Conservation District (ACD) to create a series of public education newsletter articles.

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

Location: Watershed-wide

Results: The Anoka Conservation District (ACD) drafted two newsletters and sent each to local community leaders as well as local newspapers. Each was printed in several city newspapers.

Both newsletters focused on public education regarding wetlands. The articles included information on recognizing wetlands as well as their values and benefits. Brief explanations of wetland regulations and penalties for rule violations were included in both articles. Directives on how to acquire additional information regarding wetlands were also provided.



A Brief History of Wetland Policy in Minnesota

1850's survey maps show the general locations of expansive "pre-settlement" wetlands that may have covered as much as 40% of Anoka County. At the turn of the 20th Century, state policy treated these wetlands as undesirable wastelands. This resulted in large-scale ditching efforts that contributed to the drainage of as much as 50% of Anoka County's pre-settlement wetlands.

Following the droughts of the 1930s, however, large-scale drainage efforts were generally abandoned in Anoka County, and Minnesota policy began to shift toward the conservation of surface waters that were considered to have public value. In 1973, shortly after the passage of the federal Clean Water Act, Minnesota expanded it's definition of public waters to include large, deep wetlands. These wetlands were mapped in the early-1980s as part of the Minnesota Public Water Inventory. PWI wetlands continue to be managed by the DNR today.

Since Minnesota public waters only protect large, deep wetlands, Minnesota passed the Wetland Conservation Act of 1991 (WCA) to establish protection for all of Minnesota's wetlands that were not included in the PWI. To ensure a "no net loss" of wetland values, WCA requires people to off-set approved unavoidable wetland impacts through wetland mitigation, or by purchasing credits from a local wetland mitigation bank.

WCA is administered through Local Government Units (LGUs), which includes the Lower Rum River Watershed Management Organization and Coon Creek Watershed District. If you have a project that may impact a wetland, contact your LGU to identify any necessary approvals.

Round Lake, Andover – Public Survey circa 1855

Round Lake, Andover - DNR PWI circa 1980

ANDOVER

Lower Rum River Watershed Management Organization
http://www.lrrwmo.org
Phone: 763-767-5131

Coon Creek Watershed District
www.cooncreekwd.org
Phone: 763-755-0975

An Ode to Anoka County Wetland Policy - The Dr. Seuss Version

Wasteland, wasteland the surveyors said.
It's 1858, Minnesota settlers are on their way.
We need some land that's dry.

Ditch, ditch all wetlands, the state of Minnesota did say.
It's 1900, swamps, bogs, and marshes? What a waste,
We want progress today.

Clank, clank when the machines.
Cutting deep channels in strait lines.
It's the early 1900s, it's still too wet here!
Drain and straighten everything,
We're nearly halfway there!

Stop, stop! Cease all the ditching, we have better things to do.
It's the 1930s, we're out of money, and oh the land so dry.

Wasteland, wasteland? Does surface water have value?
Perhaps we shouldn't drain them all.
It's the 1940s, we'll save the biggest and the deepest.
We'll call them Minnesota public waters.

Wetlands, wetlands. We didn't realize.
Habitat? Flood Storage? Water Quality? They have public value too.
It's the 1970s, let's map them and protect the wet areas.
We'll call them public water wetlands.

Wait, wait! We haven't protected them all?
It's 1991, let's save all wetlands.
We'll pass the Wetland Conservation Act because they provide us public service.

Drain, fill, excavate. We're still impacting wetlands.
Will you help protect them too?
It's 2014, your chance to make history.
What are you going to do?

Round Lake, Andover – Public Survey circa 1855

Wetland drainage circa 1900

Lower Rum River Watershed Management Organization
http://www.lrrwmo.org
Phone: 763-767-5131

Coon Creek Watershed District
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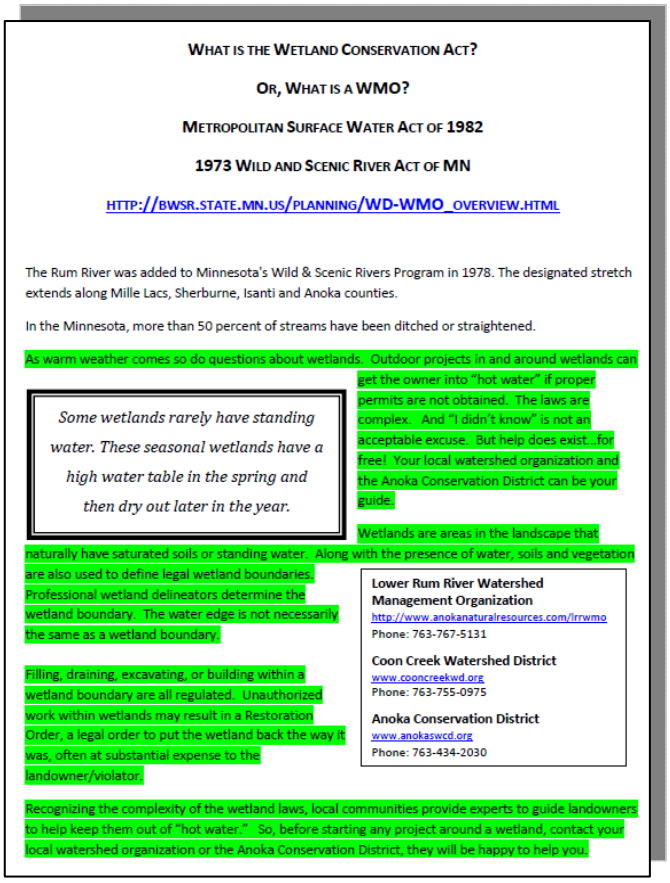
Phone: 763-755-0975



What is the Wetland Conservation Act?

Or, What is a WMO?

Metropolitan Surface Water Act of 1982

1973 Wild and Scenic River Act of MN

http://bwsr.state.mn.us/planning/WD-WMO_overview.html

The Rum River was added to Minnesota's Wild & Scenic Rivers Program in 1978. The designated stretch extends along Mille Lacs, Sherburne, Isanti and Anoka counties.

In the Minnesota, more than 50 percent of streams have been ditched or straightened.

As warm weather comes so do questions about wetlands. Outdoor projects in and around wetlands can get the owner into "hot water" if proper permits are not obtained. The laws are complex. And "I didn't know" is not an acceptable excuse. But help does exist...for free! Your local watershed organization and the Anoka Conservation District can be your guide.

Some wetlands rarely have standing water. These seasonal wetlands have a high water table in the spring and then dry out later in the year.

Wetlands are areas in the landscape that naturally have saturated soils or standing water. Along with the presence of water, soils and vegetation are also used to define legal wetland boundaries. Professional wetland delineators determine the wetland boundary. The water edge is not necessarily the same as a wetland boundary.

Filling, draining, excavating, or building within a wetland boundary are all regulated. Unauthorized work within wetlands may result in a Restoration Order, a legal order to put the wetland back the way it was, often at substantial expense to the landowner/violator.

Lower Rum River Watershed Management Organization
http://www.anokanaturalresources.com/lrrwmo
Phone: 763-767-5131

Coon Creek Watershed District
www.cooncreekwd.org
Phone: 763-755-0975

Anoka Conservation District
www.anokaswcd.org
Phone: 763-434-2030

Recognizing the complexity of the wetland laws, local communities provide experts to guide landowners to help keep them out of "hot water." So, before starting any project around a wetland, contact your local watershed organization or the Anoka Conservation District, they will be happy to help you.

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). 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.

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 2014 the review of Anoka's local water plan has been completed. No other plans have yet been received.

Web Video

Description: As part of the LRRWMO's public education plan web videos are being used to convey conservation messages. The ACD was asked to create web videos about water conservation, correcting riverbank erosion, as well as wetland regulation and post them on the LRRWMO website.

Purpose: To provide education to the public about aquifer sustainability and water use, streambank erosion problems and solutions, as well as wetland regulation and protection.

Location: Watershed-wide

Results: The web video about water conservation was completed in March of 2014 and can be viewed through the LRRWMO website. Scripts have been written and video footage has been collected for the assembly of the Riverbank Erosion and Wetland Regulation videos. The videos will be completed and posted to the LRRWMO (*LRRWMO.org*) website by March 31 of 2015.

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.

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.

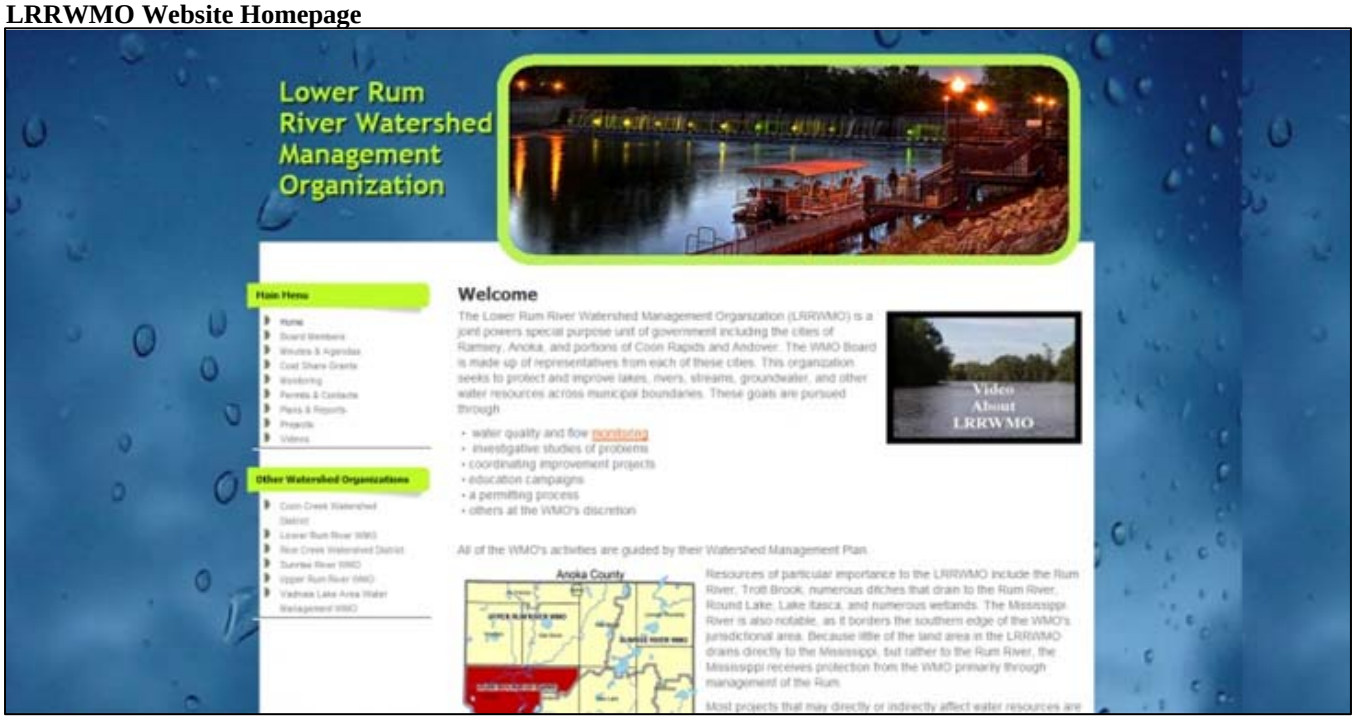
Location: LRRWMO.org

Results: In 2013 the ACD upgraded, redesigned, and re-launched the LRRWMO website. These updates were necessary because the old website platform was incompatible with certain tablet computers and smartphones. Additionally, the old website was hosted with in the ACD website, while the new website is completely independent, offering the WMO future management choices.

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,
- watershed management plan and annual reports,
- descriptions of work that the organization is directing,
- highlighted projects.

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	WMO Asst (no charge)	BMP Maintainance	Volunteer Precipitation	Reference Wetlands	DNR Observation Wells	Lake Levels	Lake Water Quality	Stream Levels	Stream Water Quality	Watershed Outlet Monitoring	Student Biomonitoring	LRRWMO Admin	LRRWMO Outreach/Promo	Website Management	Anoka Nat. Pres. Restoration	Rum River WRAPP	Cost Share - Local/State	Total
Revenues																		
LRRWMO	0	0	0	1725	0	800	1300	600	0	0	825	850	8440	440	0	0	1431	16411
State	0	0	0	0	120	0	0	0	4473	0	0	0	0	0	29066	16480	0	50138
Anoka Conservation District	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anoka Co. General Services	586	0	0	0	77	0	0	0	0	0	0	0	0	0	8071	0	384	9117
County Ag Preserves	0	0	0	0	0	0	461	0	0	0	39	0	0	0	0	0	5746	6246
Regional/Local	0	0	0	0	0	0	0	0	0	720	0	0	0	0	0	0	0	720
Other Service Fees	0	0	0	0	0	0	0	0	0	0	0	(0)	0	0	1336	0	0	1336
BWSR Cons Delivery	0	3302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3302
BWSR Cost Share TA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Water Planning	0	0	99	241	0	0	0	0	0	287	0	471	0	14	0	0	0	1111
TOTAL	586	3302	99	1966	197	800	1761	600	4473	1007	864	1321	8440	454	38473	16480	7561	88383
Expenses-																		
Capital Outlay/Equip	13	70	2	42	4	19	29	13	90	22	18	29	101	9	393	118	0	972
Personnel Salaries/Benefits	505	2744	85	1633	170	765	1137	499	3542	867	708	1138	3957	337	15393	4642	0	38122
Overhead	34	184	6	110	11	51	76	34	238	58	48	76	266	23	1034	312	0	2562
Employee Training	4	20	1	12	1	6	8	4	26	6	5	8	29	2	112	34	0	277
Vehicle/Mileage	9	49	2	29	3	14	20	9	63	15	13	20	70	6	273	82	0	677
Rent	22	119	4	71	7	33	49	22	153	37	31	49	171	15	665	201	0	1647
Program Participants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7561	7561
Program Supplies	0	117	0	59	0	3	442	10	362	0	42	0	677	0	20602	11090	0	33404
McKay Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	586	3302	99	1956	197	891	1761	590	4473	1007	864	1321	5270	391	38473	16480	7561	85221

Recommendations

- **Actively participate in the MPCA Rum River WRAPP (Watershed Restoration and Protection Plan) which began 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.** Diagnostic monitoring is complete and will be reviewed by MPCA. Local review is advised.
- **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. A grant is secured by ACD and will be used in communities providing 25% match.
- **Implement water conservation measures** throughout the watershed and promote it metro-wide. Depletion of surficial water is a concern.
- **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.
- **Remind LRRWMO Cities that local water plans must be updated**.