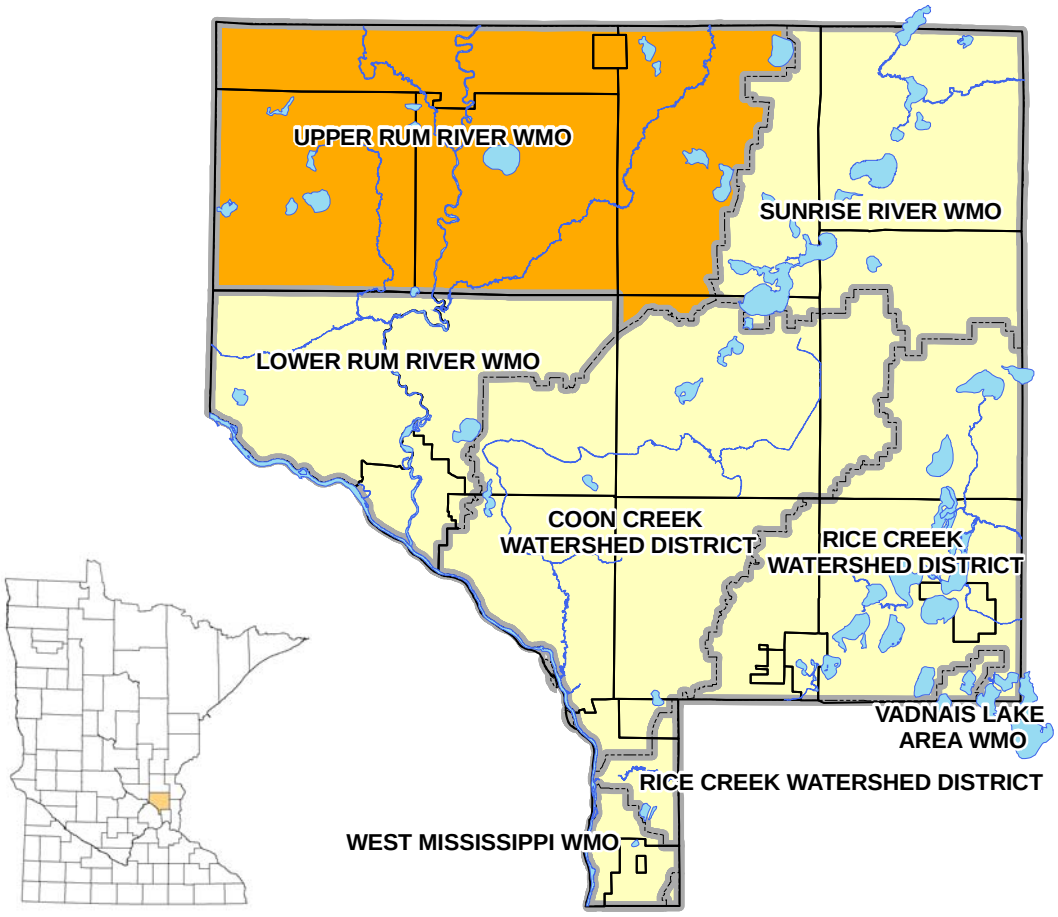
2012 Annual Report

Upper Rum River

Watershed Management Organization

Bethel - East Bethel – Ham Lake
Nowthen - Oak Grove – St. Francis



March 20, 2013

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Upper Rum River Watershed Management Organization
9900 Nightingale Street NW
Oak Grove, MN 55011-9204

I. Introduction

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

The Upper Rum River Watershed Management Organization (URRWMO) is a joint powers organization under Minnesota Statutes, Section 471.59. It is comprised of the cities of Bethel, Oak Grove, Nowthen, and St. Francis, and portions of the cities of East Bethel and Ham Lake. 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 URRWMO meets meet every other month on the first Tuesday at 7pm at the Sandhill Center for the Arts in Bethel, MN.

Rum River at St. Francis.

II. Activity Report

a. Current Board Members

CITY OF BETHEL

Todd Miller (Chair)
PO Box 15
Bethel, MN 55005
763.434.8331
tmiller@popp.net

Vacant

CITY OF EAST BETHEL

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Calvin Bahr
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CITY OF HAM LAKE

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CITY OF NOWTHEN

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Vacant

CITY OF OAK GROVE

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CITY OF ST. FRANCIS

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763.213.0621
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Mike Haggard
23340 Cree Street NW
St. Francis, MN 55070
763.235.2312
mhaggard@stfrancismn.org

b. Employees and Consultants

The URRWMO does not employ staff, but does utilize consulting services and enters into cooperative agreements with other government agencies. A description of contracted services is listed below:

Consultant/Partner	Contact	Work Description
Anoka Conservation District	Jamie Schurbon, Water Resource Specialist 1318 McKay Drive 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. • Assistance preparing annual newsletter article. • Assistance preparing annual reports to BWSR. • Assistance reviewing local water plans.
Gail Gessner	Gail Gessner 4621 203rd Lane NW Oak Grove, MN 55303 763-753-2368 bethelgail@hotmail.com	• Recording secretary for meetings. • Miscellaneous administrative assistance.

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 URRWMO solicited bids in 2010 for work to occur 2011. Documentation is provided in our 2010 annual report. In early 2013 the URRWMO solicited bids for work to occur in 2013. To accomplish this, a request for proposals was sent to consulting engineers serving each of the six member communities, as well as the Anoka Conservation District. Responses were received from Hakanson Anderson and the Anoka Conservation District. The Anoka Conservation District provided the lowest bid and was selected.

d. Implementation of Watershed Management Plan

The current URRWMO Watershed Management Plan was approved by the Minnesota Board of Water and Soil Resources (BWSR) in 2007, and implementation began that same year. In 2012 the monitoring plan portion was updated for the years 2013-2017. On the whole, the plan contains a detailed schedule of tasks that the URRWMO should accomplish each year in order to realize its goals. The table on the following page compares our planned work to our accomplished work.

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Comparison of work planned in the URRWMO Watershed Management Plan (including amendments) and work accomplished for the last 3 years. The work plan for 2013 is also shown.

	2010		2011		2012		2013	
Task	**Planned**	**Accomplished**	**Planned**	**Accomplished**	**Planned**	**Accomplished**	**In Watershed Plan**	**Plan to Do**
Monitoring								
Lake Levels	George, East Twin Lakes	George, East Twin Lakes	George, East Twin Lakes	George, East Twin, Minard, and Cooper Lakes	George, East Twin Lakes	George, East Twin, Minard, and Cooper Lakes	George, East Twin, Minard, and Cooper Lakes	George, East Twin, Minard, and Cooper Lakes
Lake Water Quality			George, East Twin Lakes	George, East Twin Lakes			George, East Twin Lakes	George, East Twin Lakes
Stream Water Quality	Rum River, 2 sites Cedar, Ford, and Seelye Brooks to be monitored 1 year during 2008-2012	Rum River, 2 sites. Done in coordination with Lower Rum R WMO and Met Council monitoring	Rum River, 2 sites Cedar, Ford, and Seelye Brooks to be monitored 1 year during 2008-2012	Rum River, 2 sites Cedar, Ford, and Seelye Brooks	Rum River, 2 sites	None. MPCA monitoring in 2013-14. WMO temporarily suspending monitoring to avoid duplication.		
River Biomonitoring with St Francis High School classes						Rum River biomonitoring with St. Francis High School classes	Rum River biomonitoring with St. Francis High School classes	Rum River biomonitoring with St. Francis High School classes
Reference Wetland Hydrology						Lake George and East Twin reference wetlands	Lake George, E Twin, and Cedar reference wetlands	Lake George, E Twin, and Cedar reference wetlands
Groundwater Levels	Develop groundwater level monitoring plan in 2010-11		Develop groundwater level monitoring plan in 2010-11					
Water Quality Improvement								
Water Quality Improvement Cost Share Fund	$1,000	$500 plus $1,990 carry over	$1,000	$567 + $1,385.50 carry over. Crooked Br streambank stabilization at Petro property	$1,000	$1,000 + $1,580.90 carryover. Fund Crooked Br streambank stabilization at Petro property and Lake George shoreline resto at Erickson property.	$1,000	$1,000 + $2,658.35 unencumbered carryover.
Public Education								
Website or Newsletter	Annual newsletter, Maintain and update website	Annual newsletter, Maintain and update website	Annual newsletter, Maintain and update website	Annual newsletter, Maintain and update website	Annual newsletter, Maintain and update website	Annual newsletter, website, create web video about the WMO and biomonitoring.	Annual newsletter, Maintain and update website	Annual newsletter, website overhaul.
Inventories and Studies								
Erosion Mapping	Field study of Rum R. erosion and initiate corrective actions	Field study of Rum R. erosion and offer assistance to owners with problems	Field study of Rum R. erosion and initiate corrective actions	Study completed in 2010. Ongoing work with landowners				
Study groundwater levels, trends, water quality and capacity.	Groundwater study, including aquifer capacity-2010-2017.	Contributed $2,830 to County Geologic Atlas.						County geologic atlas phase I to be completed.
Planning and Reporting								
Annual Report to BWSR	Write and submit	Wrote and submitted	Write and submit	Wrote and submitted	Write and submit	Wrote and submitted	Write and submit	Write and submit
Annual Report to State Auditor						Wrote and submitted		Write and submit
Review member cities' annual reports to the URRWMO	Review cities' reports	Done by URRWMO Bd	Review cities' reports	Done by URRWMO Bd	Review cities' reports	URRWMO Bd will do.	Review cities' reports	URRWMO Bd will do.
Review member city Local Water Plans, once revised	Complete review of draft Local Water Plans for compliance with WMO Plan	Requested edits to E Bethel plan were received, plan approved. All are now done.						
Review WMO Plan, including past work and upcoming budget	Review WMO Plan, work and budget	Done by WMO Board during annual reporting	Review WMO Plan, work and budget	Done by WMO Board during annual reporting	Review WMO Plan, work and budget	Done by WMO Board during annual reporting	Review WMO Plan, work and budget	Done by WMO Board during annual reporting
Update Joint Powers Agreement	WMO Board continues work on JPA updates	Minor updates remain outstanding, despite work	WMO Board continues work on JPA updates					
Set aside matching funds for future grants	$1,000	Unable with current finance administration	$1,000	Unable with current finance admin. Admin changed so it can occur in 2012.	$1,000	$1,000	$1,000	$0
Other					Develop 2013-17 water monitoring plan.	Adopted 2013-17 water monitoring plan.		
Other						Established a WMO checking account		

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e. Status of Local Plan Adoption and Implementation

All URRWMO member cities have local water plans which are consistent with the URRWMO Watershed Management Plan and have been approved by the URRWMO. All were updated in 2008 or 2009 for consistency with the URRWMO Plan, which was approved in 2007. These plans are now being implemented.

To track member cities' progress on local plan implementation, the URRWMO 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 Bethel	
Local Water Plan Status	Bethel's new local water plan has been approved by the URRWMO and favorably reviewed by Metropolitan Council. The URRWMO approved the plan in February 2009. In its 2011 annual report, it became apparent that the City lacks several programs that are required by the URRWMO plan. These include: an erosion and sediment control ordinance, stormwater ordinance, flood ordinance, a permit program for wetland excavations, stormwater infrastructure inspections, and guidelines for developers. Throughout 2012 the city worked to rectify these. The URRWMO has considered revisiting whether some of these requirements are not applicable to the City of Bethel because it is very small and completely built out.
Submitted 2012 annual report to URRWMO?	Yes
Some Recent Implementation Accomplishments	• Educational efforts that reached 176 households on the topics of hazardous waste disposal and yard waste management. • Is working to reevaluate stormwater treatment and conveyance in the city. • Street sweeping. • Stormwater infrastructure inspections in 2012. • Completed a wetland ordinance in 2011. • Development of a map in 2008 that includes ponds, lakes, streams, wetlands, and major storm sewer crossings. • Development in 2008 of an engineering manual with stormwater construction requirements.
City of East Bethel	
Local Water Plan Status	East Bethel's local water plan was approved by the URRWMO in 2010. Previously, a draft had been reviewed in May 2009, and was approved contingent upon several minor revisions. Those revisions were received in 2010, and favorably reviewed. The city still lacks several needed ordinances, including erosion and sediment control and stormwater. Their 2011 report indicated they lack a wetland ordinance, but also lists out required buffer widths, which suggests they do have such an ordinance.
Submitted 2012 annual report to URRWMO?	Yes

Some Recent Implementation Accomplishments	• Inventoried and did MN RAM classifications on four wetlands in 2012. Wetland protections were implemented based on wetland classification/quality. • Inspecting land disturbance activities weekly or after rain events. No enforcement actions were needed in 2012. • Street sweeping. • Ongoing work to complete BMP's in the City's Storm Water Pollution Prevention Plan. • Began stormwater structure inspections 2012. • Educational efforts that reached 11,000 residents on the topics of wetland buffers, water conservation, hazardous waste disposal, yard waste management, and pet waste disposal.

City of Ham Lake

Local Water Plan Status	Ham Lake's new local water plan has been favorably reviewed by the Metropolitan Council and URRWMO. The URRWMO approved the plan in May 2009, with contingencies. At their December 7, 2009 meeting, the Ham Lake City Council approved the local water plan with revisions that met the URRWMO's contingencies.
Submitted 2012 annual report to URRWMO?	Yes
Some Recent Implementation Accomplishments	• Began creating an illicit discharge ordinance in 2012. • Inspection of structural pollution control devices, and maintenance based upon inspection reports. • Routine inspection of land disturbance activities. • Street sweeping. • Ongoing work to complete BMP's in the City's Storm Water Pollution Prevention Plan. • Inspection of 20% of MS4 outfalls, sedimentation basins, and ponds each year on a rotating basis. Any cleaning or maintenance is based on the inspection reports. • Educational efforts through the City's newsletter, which reaches the entire population of 14,000+. Educational article topics in 2011 included wetland buffers, water quality monitoring, groundwater protection, water conservation, hazardous waste disposal, yard waste management, pet waste disposal, and activities of the URRWMO. Additional education is accomplished through the city's website.

City of St. Francis

Local Water Plan Status	St. Francis' local water plan has been approved by the URRWMO. The City first submitted a revised local water plan that was favorably reviewed by the Metropolitan Council on May 5, 2009 and approved contingent upon several minor revisions by the URRWMO on the same day. Revisions were made by the city to address the contingencies and the URRWMO approved the St. Francis local water plan on September 1, 2009. The City lacks a shoreland ordinance, as required by the URRWMO. However it does have a special Rum River district with scenic river rules. As determined by the DNR, because the city has no lakes, a shoreland ordinance is not applicable.
Submitted 2012 annual report to URRWMO?	Yes
Some Recent	• Recently completed a GIS inventory of stormwater treatment basins and inspected all

Implementation Accomplishments	99 in 2012. Several maintenance needs were identified. • Inspecting construction projects weekly or after rain events >0.5 inches. • Swept all streets with improved surfaces (urban and rural) in spring. Swept all urban streets again in the fall. • Development of a GIS inventory and inspection plan for stormwater treatment basins and water control structures is underway. Inspections will begin in fall 2012. • Educational efforts that reached 7,500 residents on the topics of groundwater protection, water conservation, yard waste management, and hazardous waste disposal. • Routine removal of sediment from a Stormceptor treatment device on Rum River Blvd. • The City is working toward the goal of establishing local policies and official controls for surface and groundwater management.

City of Nowthen

Local Water Plan Status	Nowthen's local water plan ahs been approved by the URRWMO. The URRMO Board first reviewed the plan in February 2009, where some deficiencies were found. The City revised the plan based upon URRWMO comments. The revised plan was approved by the URRWMO Board in May 2009. The Metropolitan Council has also indicated that they found the draft plan satisfactory in their January 2009 letter. The City has the full suite of water protection ordinances required by the URRWMO.
Submitted 2012 annual report to URRWMO?	Yes
Some Recent Implementation Accomplishments	• Inventoried and did MN RAM classifications on four wetlands in 2012. Wetland protections were implemented based on wetland classification/quality. • Performed maintenance at four water control structures in 2012. • Swept streets in areas with curb and gutter and other priority areas, including Rogers Lake Area, Quiet Meadows, Autumn Acres, East Twin Lakes Parking Lots, and Garnet Street. • Special attention to street sweeping around Rogers Lake, an impaired water. • Updated ordinances in 2010, including erosion control, stormwater, and wetland ordinances for consistency with the URRWMO Plan. • Adopted an illicit discharge ordinance in 2010. • Ongoing work to complete BMP's in the City's Storm Water Pollution Prevention Plan. • Annual inspections of stormwater basins and sumps. • Educational efforts to approximately 2,300 residents on topics of hazardous waste disposal, yard waste disposal and the activities of the URRWMO.

City of Oak Grove

Local Water Plan Status	Oak Grove's local water plan ahs been approved by the URRWMO. The City first submitted its local water plan to the URRWMO in early 2009. The URRWMO noted several deficiencies in a comment letter dated February 3, 2009. Revisions were made and the URRWMO approved the plan in May 2009. The Metropolitan Council favorably reviewed the plan (letter dated Sept. 9, 2009). The City has all of the ordinances required by the URRWMO Plan.
Submitted 2012 annual report to URRWMO?	Yes
Some Recent	• Inspected sumps and stormwater infrastructure in 2012.

Implementation Accomplishments

- Inspected 34 stormwater treatment facilities in 2012. Six issues were addressed.
- Street sweeping in spring.
- Completed mapping of stormwater conveyance system.
- Educational efforts that reached 4,000 residents on the topic of groundwater protection.
- The City continues to work diligently to decrease illicit discharges. Their recycle day and recycling center give residents options to dispose of material without turning to illegal dumping. Their quarterly newsletter is used to explain illicit discharge and proper septic system maintenance to residents.
- Monitored two permitted projects in 2013: Holly Street reconstruction, the Oak Grove Animal Hospital, and Michael Rivard sand mining.

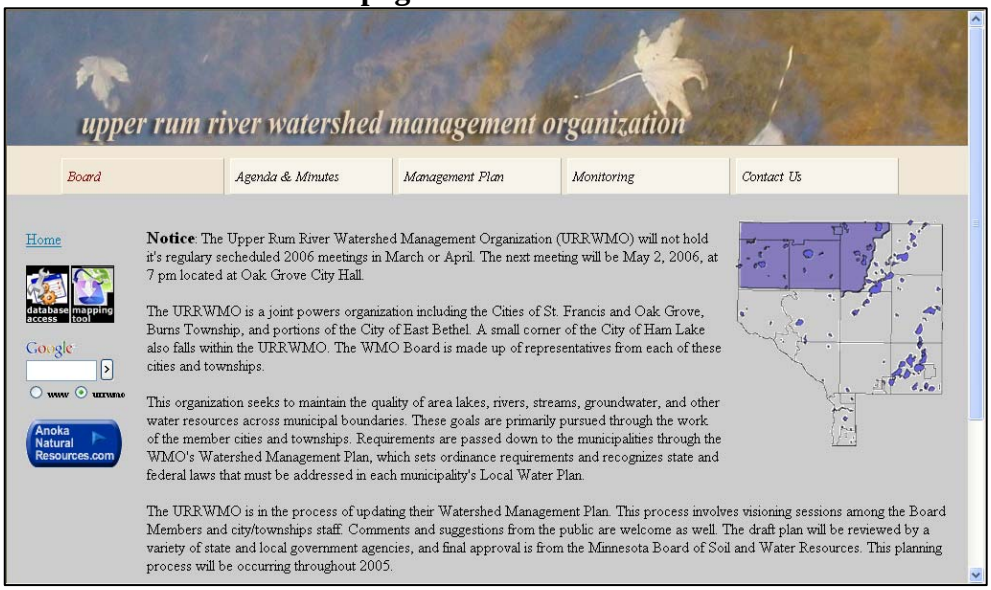
f. Public Outreach

The URRWMO and its member cities do occasional public outreach and education projects (see tables above), but the URRWMO's website serves as the primary, continuous public outreach tool. The website was designed in 2003 and has been in continuous operation since. Website contents include 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.

The website serves as an alternative to the state-mandated annual newsletter. The URRWMO ensures visibility of its website by asking member cities and townships to post the URRWMO website address in their newsletters. Links to the URRWMO website are also provided through other websites including the Anoka Natural Resources, Anoka Conservation District, and member municipality websites.

The website address is http://www.anokanaturalresources.com/urrwmo

URRWMO Website homepage



g. Permits, Variances, and Enforcement Actions

The URRWMO does not issue permits, variances, or take enforcement actions. These responsibilities are held by the member municipalities.

h. Status of Locally Adopted Wetland Banking Program

The URRWMO does not have a locally adopted wetland banking program.

i. 2013 Work Plan

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. Cooper and Minard Lakes were added in 2011. Water level issues and citizen complaints have become frequent at these lakes.	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).	East Twin Lake Lake George Cooper Lake Minard Lake	$800
Lake Water Quality Monitoring	To detect water quality trends and diagnose the cause of changes.	May through September twice-monthly monitoring of the following parameters: total phosphorus, chlorophyll-a, secchi transparency, dissolved oxygen, turbidity, temperature, conductivity, pH, and salinity.	East Twin Lake Lake George	$2,500
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 St. Francis 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 Hwy 24	$825

Task	Purpose	Description	Locations or Action	Cost
Reference Wetland Hydrology Monitoring	The ACD maintains a network of 18 reference wetlands throughout the county. These data aid in understanding of water conditions in wetlands, surficial water table changes, and trends. It is useful for regulatory determinations (for example, is a dry area actually a wetland, or are all wetlands dry right now?) and resolving water level disputes. Each reference wetland has been monitored for more than 10 years, providing a long term record.	Install and maintain a WL40 electronic water level monitoring device at the edge of reference wetlands. These devices measure water levels every four hours. Data are made available at any time through the ACD website.	East Twin, Lake George, and Cedar Reference Wetlands	$1,680
URRWMO 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 URRWMO website with current information about the organization, and meeting minutes and agendas. Web videos developed by the URRWMO are also featured on the website.	http://www.anokanaturalresources.com/urrwmo/	$405 annual maint $800 website revamp
URRWMO Annual Newsletter	To increase awareness of the URRWMO and its programs, as well as educate the public on water quality issues. A featured topic in the 2012 article will be stream biomonitoring.	In order to achieve the greatest distribution at the lowest cost the URRWMO will draft an newsletter article and ask that member cities include it in their newsletters. It is also printed in the school district newspaper, "The Courier."	Watershed-wide	$350
Prepare Annual Report to State Auditor	To provide transparency and accountability of organization operations.	Online reporting of WMO finances though the State Auditor's SAFES website.	Watershed-wide	$300
Prepare Annual Report to BWSR	To provide transparency and accountability of organization operations.	Produce an annual report of URRWMO activities and finances that satisfies Minnesota Rules 8410.0150.	Watershed-wide	$700
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

III. Financial and Audit Report

a. 2012 Financial Summary

See Appendix A.

b. Fund Balances

See Appendix A.

c. Financial Audit Documentation

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

Audit of the URRWMO finances last occurred for 2011, via the audit of the City of Oak Grove finances. At that time all URRWMO revenues and expenditures were administered through the City of Oak Grove, which underwent a complete financial audit yearly by a certified accounting firm. Beginning in 2012 the URRWMO began its own checking account. The WMO understands that BWSR is revising MN Rules 8410 to require audits for WMOs with annual expenditures <$150,000 once every five years. The URRWMO anticipates this rule revision, and plans an audit in 2016.

d. 2013 Budget

At its May 1, 2012 meeting the URRWMO Board approved a 2011 budget of $11,990. Details of that budget are below.

WATERSHED PLAN IMPLEMENTATION		Bethel 1.08%	East Bethel 24.21%	Ham Lake 0.99%	Nowthen 23.66%	Oak Grove 29.69%	St. Francis 20.37%
Lake Levels Monitoring - Lake George, East Twin Lake, Cooper Lake, Minard Lake	$800.00	$8.64	$193.68	$7.92	$189.28	$237.52	$162.96
Lake Water Quality Monitoring - Lake George, East Twin Lake	$2,500.00	$27.00	$605.25	$24.75	$591.50	$742.25	$509.25
Biomonitoring	$825.00	$8.91	$199.73	$8.17	$195.20	$244.94	$168.05
Cedar, Viking	$1,680.00	$18.14	$406.73	$16.63	$397.49	$498.79	$342.22
URRWMO Website	$310.00	$3.35	$75.05	$3.07	$73.35	$92.04	$63.15
URRWMO Annual Newsletter Article	$350.00	$3.78	$84.74	$3.47	$82.81	$103.92	$71.30
Prepare 2010 Annual Report to BWSR	$700.00	$7.56	$169.47	$6.93	$165.62	$207.83	$142.59
Water Quality Cost Share Grant Fund	$1,000.00	$10.80	$242.10	$9.90	$236.60	$296.90	$203.70
	$8,165.00	$88.18	$1,976.75	$80.83	$1,931.84	$2,424.19	$1,663.21

ADMINISTRATIVE BUDGET (Split equally six ways)		Bethel	East Bethel	Ham Lake	Nowthen	Oak Grove	St. Francis
Copies & Postage	$25.00	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17
Recording secretary	$1,200.00	$200.00	$200.00	$200.00	$200.00	$200.00	$200.00
trust	$2,500.00	$416.67	$416.67	$416.67	$416.67	$416.67	$416.67
Solicit bids for professional services	$100.00	$16.67	$16.67	$16.67	$16.67	$16.67	$16.67
Budget for URRWMO matching participation on future grant opportunities (table V-1 of URRWMO plan)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Public notice of watershed plan amendments	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Audit	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
percentages)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	$3,825.00	$637.50	$637.50	$637.50	$637.50	$637.50	$637.50
Budget Total	**$11,990.00**	**$725.68**	**$2,614.25**	**$718.33**	**$2,569.34**	**$3,061.69**	**$2,300.71**

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Appendix A:

2012 Financial Report

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UPPER RUM RIVER WATERSHED MANAGEMENT ORGANIZATION

FINANCIAL REPORT
FOR YEAR ENDED
DECEMBER 31, 2012

To the Chairperson, Todd Miller, of Upper Rum River Water Management Organization

The enclosed statement has been prepared after review of the organization's financial records for 2012. I have not audited the organization's records and do not express an opinion. The enclosed information fairly reflects the Upper Rum River WMO's financial position for the stated year.

March 19, 2013

Prepared by:
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Ham Lake, MN 55304
763-434-2030

UPPER RUM RIVER WATERSHED MANAGEMENT ORGANIZATION
9900 Nightingale Street NW
Oak Grove, MN 55011-9204

STATEMENT OF REVENUES AND EXPENSES

For: year beginning January 1, 2012 and Ending December 31, 2012

Expenditures	**Amount**
Administrative	
Insurance – League of MN Cities Insurance Trust	$0.00
Secretarial services - Gail Gessner	$960.00
Reimburse Chair Milleer for MN EIN# application fee	$40.00
Peoples Bank for checks and stamps	$170.00
Peoples Bank checking account service fee	$4.50
SUBTOTAL	$1,174.50
Non-Administrative	
Water Monitoring - Anoka Conservation District (ACD)	$2,580.00
Website – ACD	$290.00
2011 annual report to BWSR – ACD	$630.00
URRWMO annual newsletter article – ACD	$350.00
Web video about URRWMO and stream biomonitoring - ACD	$1,050.00
2013-2017 monitoring plan - ACD	$455.00
Cost share grant fund for water quality projects	$1,000.00
SUBTOTAL	$6,355.00
GRAND TOTAL	**$7,529.50**

Revenues	**Amount**	**Percent**
Administrative		
City of Bethel	868.33	16.67%
City of Nowthen	868.33	16.67%
City of East Bethel	868.33	16.67%
City of Ham Lake	868.33	16.67%
City of Oak Grove	868.33	16.67%
City of St. Francis	868.33	16.67%
SUBTOTAL	5,209.98	100.00%
Non-Administrative		
City of Bethel	$77.83	1.08%
City of Nowthen	$1,704.71	23.66%
City of East Bethel	$1,744.33	24.21%
City of Ham Lake	$71.33	0.99%
City of Oak Grove	$2,139.17	29.69%
City of St. Francis	$1,467.65	20.37%
SUBTOTAL	7,205.02	100.00%
Other		
Insurance Dividend	450.00	
City of Oak Grove partial reimbursement from 2011 #1	1,110.53	
City of Oak Grove partial reimbursement from 2011 #2	1,347.48	
SUBTOTAL	2,908.01	
GRAND TOTAL	**15,323.01**	
Retained Cash Reserves	**$7,793.51**	
Total Cash Reserves	**$7,793.51**	

UPPER RUM RIVER WATERSHED MANAGEMENT ORGANIZATION

BALANCE SHEET

For the year beginning January 1, 2012 and ending December 31, 2012

Assets	
Cash	$7,793.51
Accounts Receivable	$0.00
Water quality project grant fund held at the Anoka Conservation District	$2,796.33
Other	$0.00
Total Assets	$10,589.84

Liabilities	
Accounts Payable	$0.00
Water quality project grant fund - encumbered for Erickson Lake George project	$137.98
Other	$0.00
Total Liabilities	$137.98

Notes:
In 2012 the URRWMO began using a new financial arrangement. The organization established its own checking account and member communities were invoiced twice per year. Previously, URRWMO finances were handled within the City of Oak Grove's finances and member cities were invoiced for the actual amount of expenses as they occurred.

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Appendix B:

2012 Water Monitoring and Management Work Results

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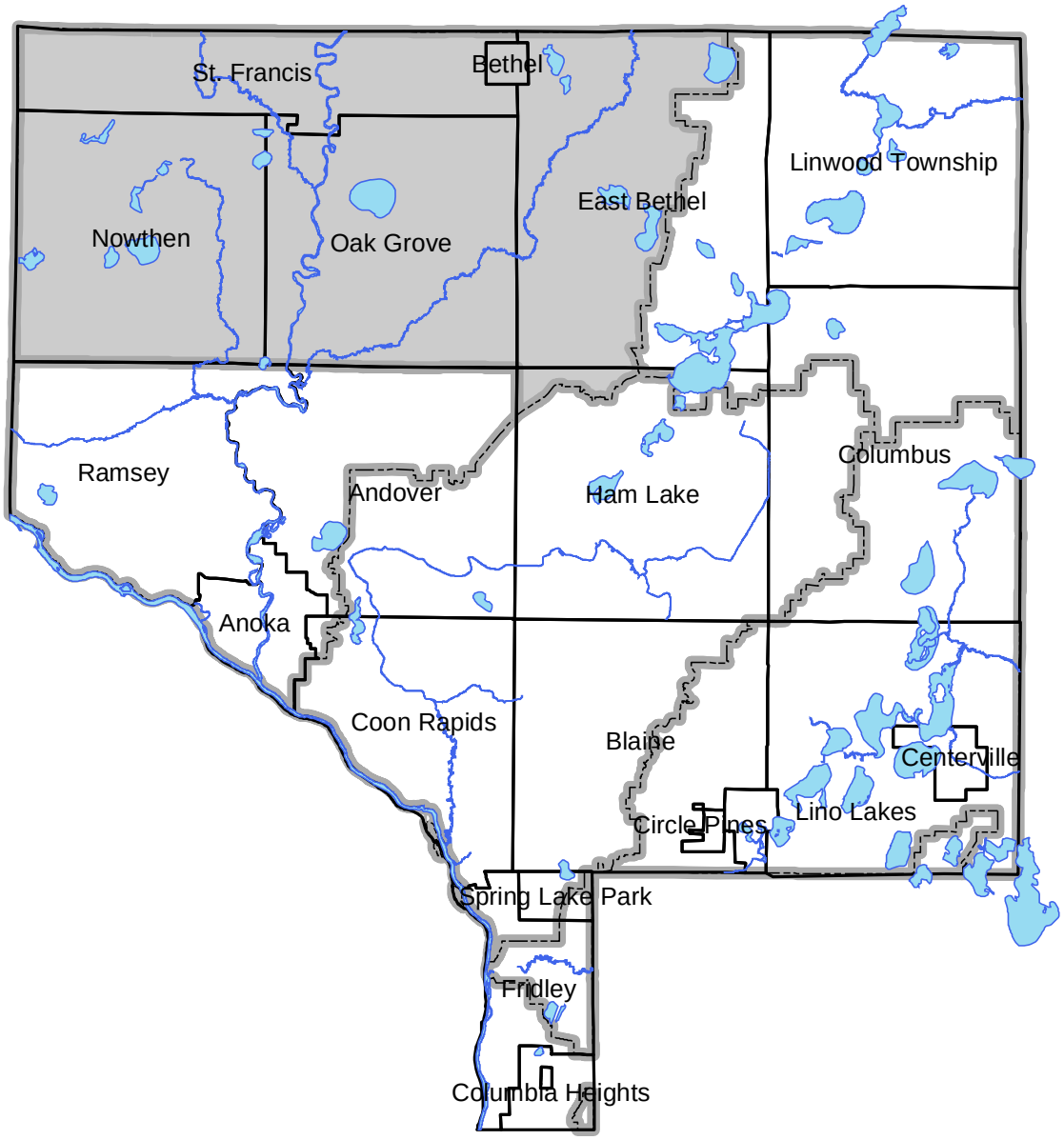
Excerpt from the
2012 Anoka Water Almanac

Chapter 3: Upper Rum River Watershed



Prepared by the Anoka Conservation District

CHAPTER 3:
UPPER RUM RIVER WATERSHED

Task	Partners	Page
Lake Level Monitoring	URRWMO, ACD, MN DNR, volunteers	3-86
Stream Water Quality – Biological Monitoring	ACD, URRWMO, ACAP, St. Francis High School	3-88
Wetland Hydrology	URRWMO, ACD	3-91
Water Quality Grant Fund	URRWMO, ACD	3-97
URRWMO Website	URRWMO, ACD	3-99
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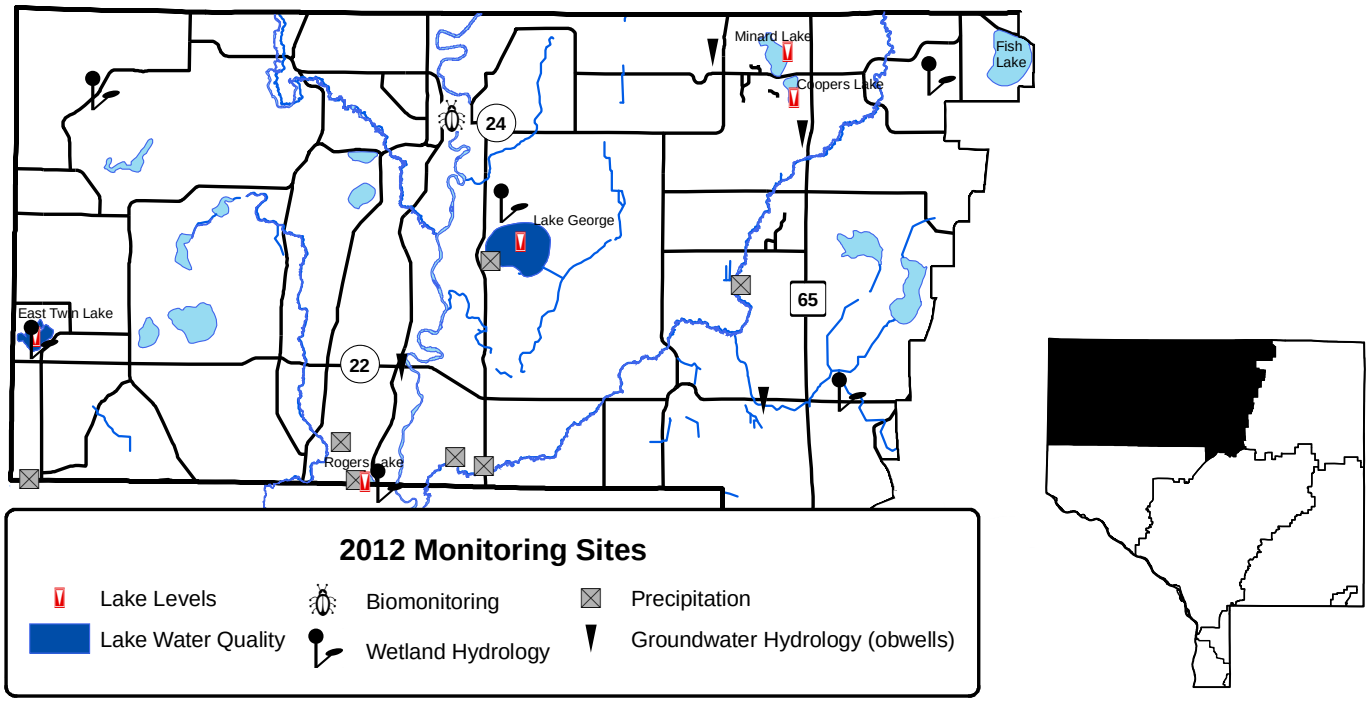
Web Video about Student Biomonitoring	URRWMO, ACD	3-101
URRWMO 2011 Annual Report to BWSR	URRWMO, ACD	3-102
URRWMO 2013-2017 Monitoring Plan	URRWMO, ACD	3-103
Financial Summary		3-103
Recommendations		3-104
Groundwater Hydrology (obwells)	ACD, MNDNR	Chapter 1
Precipitation	ACD, volunteers	Chapter 1

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



Lake Levels

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: East Twin Lake, Lake George, Rogers Lake, Minard Lake, Coopers Lake

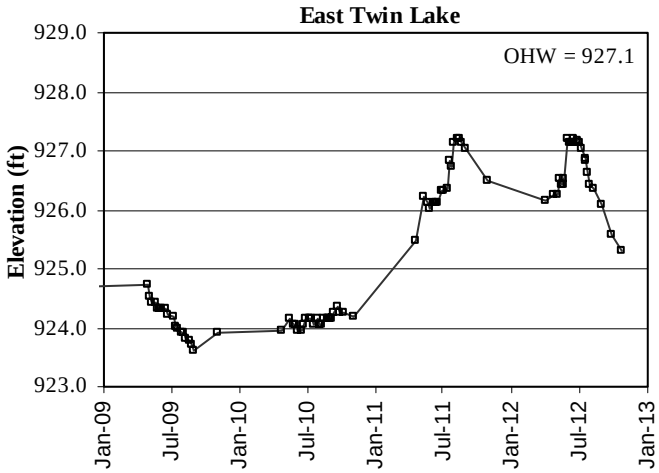
Results: Lake levels were measured by volunteers throughout the 2012 open water season. Lake gauges were installed and surveyed by the Anoka Conservation District and MN DNR. Lakes had sharply increasing water levels in spring and early summer 2012 when heavy rainfall totals occurred. Little rainfall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

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

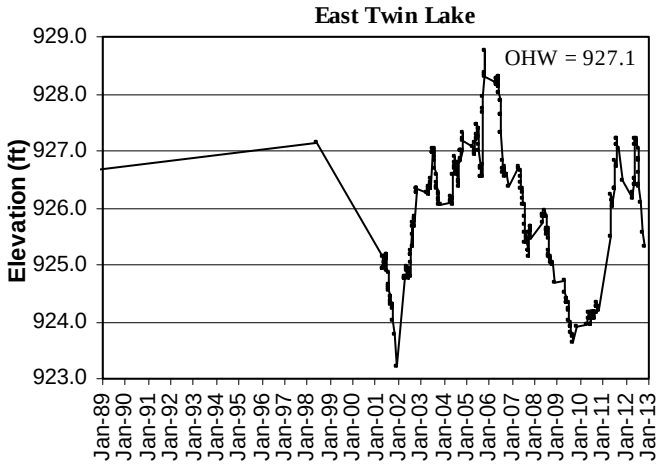
2011 and 2012 were the first years for monitoring Coopers and Minard Lakes. In recent years, there had been complaints about disproportionately low water in Coopers Lake and questions about why Minard Lake did not seem to have this problem. Indeed, both lakes have had similar maximum water levels in spring (Minard slightly higher because it is upstream). But Coopers Lake level drop rapidly by several feet in dry conditions, while Minard Lake is maintained higher.

The reasons for differences between Minard and Coopers Lake are likely due to both the elevation of the culvert between the lakes, as well as differences in geology and groundwater interaction. Minard Lake can flow into Coopers Lake through a road culvert when the water is high enough. More often, Minard Lake does not outflow. It therefore maintains higher water even during drought. Coopers Lake can have surface water outflows at lower elevations; it drains to wetlands south of the lake. At very low water levels surface water runout from Coopers Lake also ceases but lake levels continue to drop. This suggests geology and groundwater connections also are important.

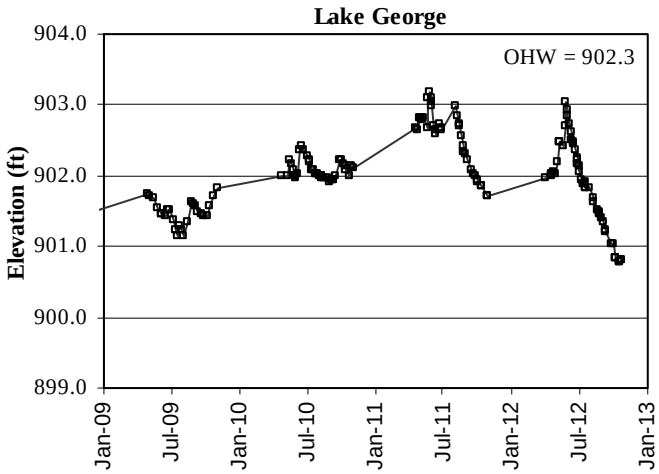
East Twin Lake Levels – last 5 years



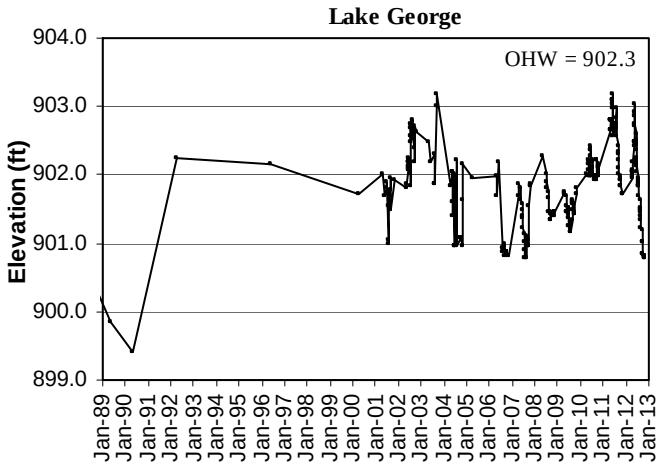
East Twin Lake Levels – last 24 years



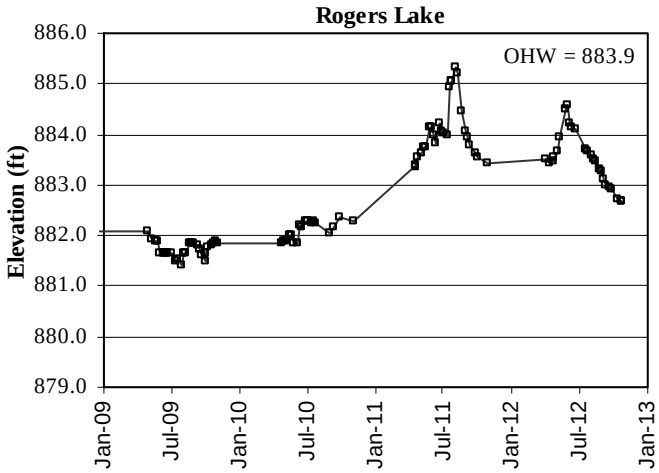
Lake George Levels – last 5 years



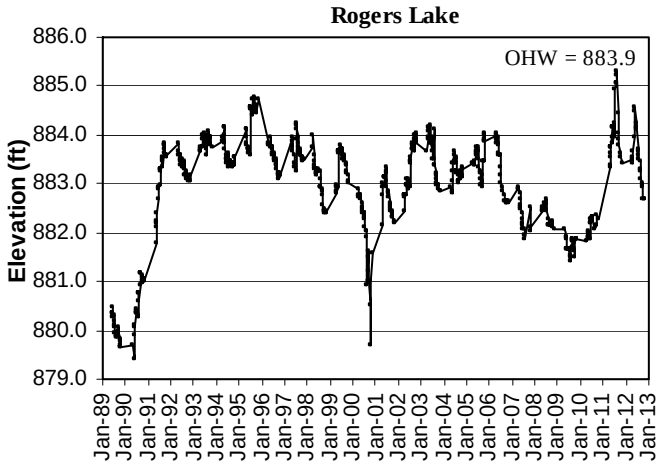
Lake George Levels – last 24 years



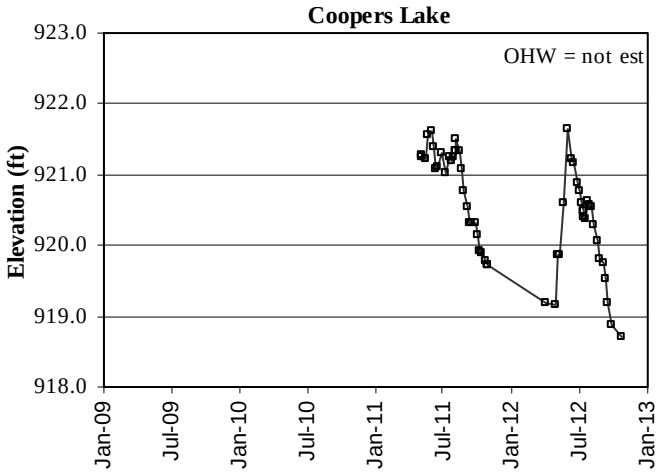
Rogers Lake Levels – last 5 years



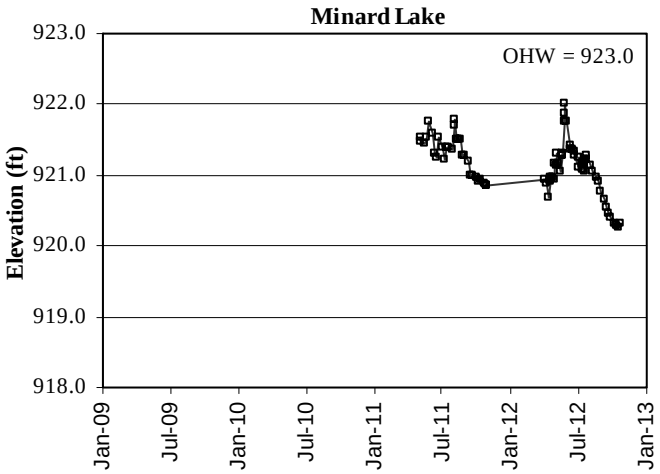
Rogers Lake Levels – last 24 years



Coopers Lake Levels – last 5 years



Minard Lake Levels – last 5 years



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 at Hwy 24, Rum River North County Park, St. Francis

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, as each gives only a partial picture of stream condition. Compare the numbers to county-wide averages. This gives some sense of what might be expected for streams in a similar landscape, but does not necessarily reflect what might be expected of a minimally impacted stream. Some key numbers to look for include:

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

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

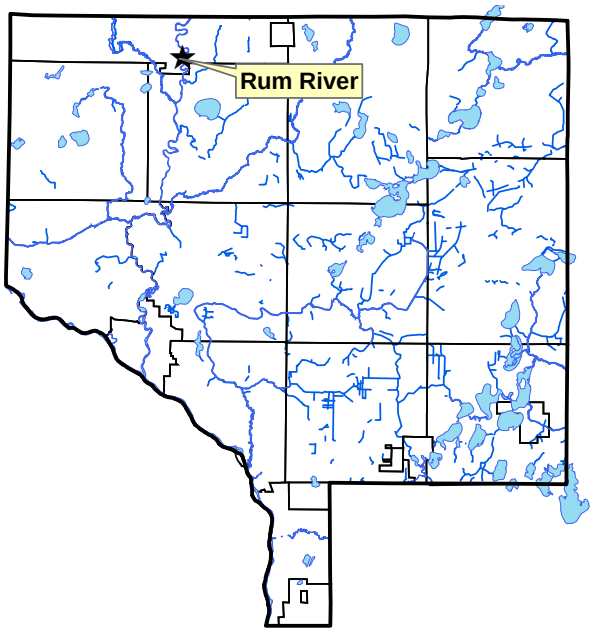
Family Biotic Index (FBI) — An index that utilizes known pollution tolerances for each family. Lower numbers indicate better stream quality.

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

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

RUM RIVER

at Hwy 24, Rum River North County Park, St. Francis



Last Monitored

By St. Francis High School in 2012

Monitored Since

2000

Student Involvement

104 students in 2012, approximately 1,224 since 2000

Background

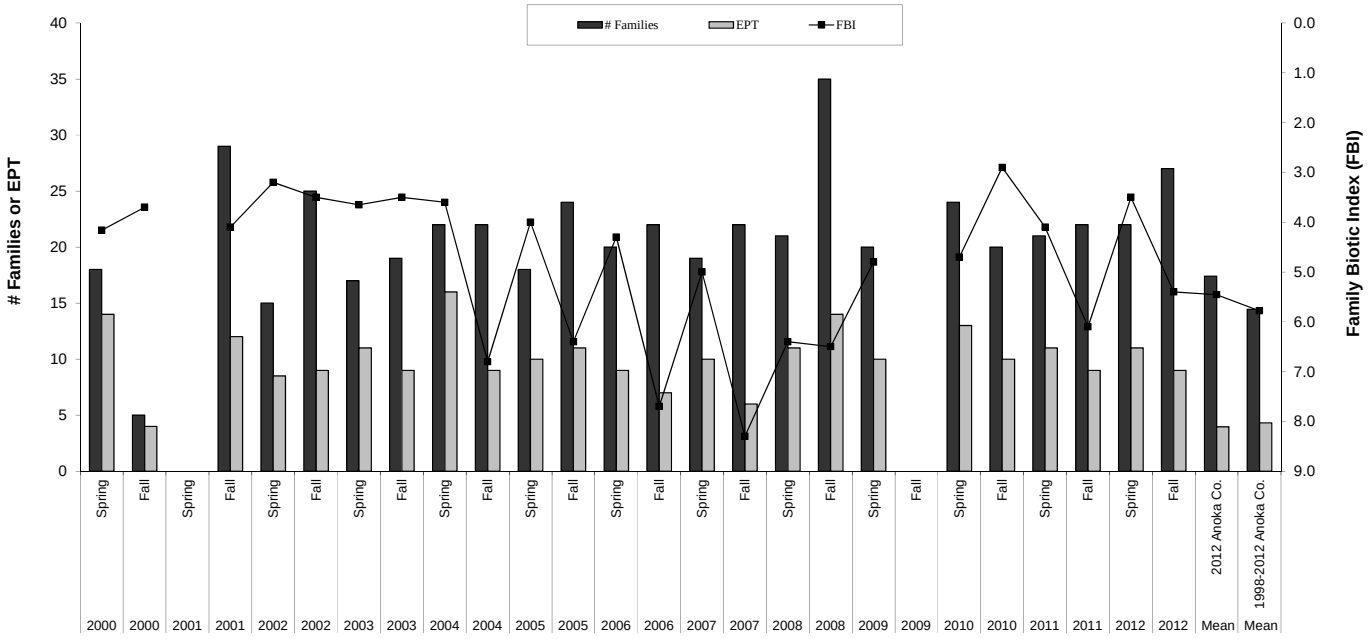
The Rum River originates from Lake Mille Lacs, and flows south through western Anoka County where it joins the Mississippi River in the City of Anoka. Other than the Mississippi, this is the largest river in the county. In Anoka County the river has both rocky riffles as well as pools and runs with sandy bottoms. The river's condition is generally regarded as excellent. Portions of the Rum in Anoka County have a state "scenic and recreational river" designation.

The sampling site is in Rum River North County Park. This site is typical of the Rum in northern Anoka County, having a rocky bottom with numerous pool and riffle areas.

Results

St. Francis High School classes monitored the Rum River in spring and fall 2012, with Anoka Conservation District (ACD) oversight. Biological data for 2012, and historically, indicate the Rum River in northern Anoka County has the best conditions of all streams and rivers monitored throughout Anoka County. In fall 2012, 27 families were found which is the most of any site in Anoka County. The number of families and number of EPT families were substantially above the county averages.

Summarized Biomonitoring Results for Rum River at Hwy 24, St. Francis (samplings by St. Francis High School and Crossroads Schools in 2002-2003 are averaged)



Biomonitoring Data for Rum River at Rum River North County Park, St. Francis

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

Year	2008	2008	2009	2009	2010	2010	2011	2011	2012	2012	Mean	Mean
Season	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	2012 Anoka Co.	1998-2012 Anoka Co.
FBI	6.40	6.50	4.80	Unusable	4.7	2.9	4.1	6.1	3.5	5.4	5.5	5.8
# Families	21	35	20	Sample	24	20	21	22	22	27	17.4	14.5
EPT	11	14	10		13	10	11	9	11	9	4.0	4.3
Date	27-May	30-Sep	29-Apr	13-Oct	27-Apr	29-Oct	10-Jun	28-Sep	22-May	27-Sep		
Sampled By	SFHS	SFHS	SFHS	SFHS	SFHS	ACD	ACD	SFHS	SFHS	SFHS		
Sampling Method	MH	MH	MH	MH	MH	MH	MH	MH	MH	MH		
Mean # Individuals/Rep.	348	156	267		142	274	418	443	144	333		
# Replicates	2	4	2		3	1	1	2	2	1		
Dominant Family	Corixidae	Corixidae	Corixidae		Nemouridae	Leptophlebiidae	baetidae	hydrophilidae	hydropsyc	veliidae		
% Dominant Family	57.5	61.4	24.3		28.1	39.4	66.3	21.4	36.6	13.8		
% Ephemeroptera	11.9	17.9	18.7		23.9	51.1	81.3	3.6	43.2	34.2		
% Trichoptera	5.9	6.9	20.2		10.8	6.2	6.0	4.3	41.1	4.2		
% Plecoptera	17.1	2.1	27.7		32.8	26.6	3.8	9.7	5.2	11.1		

Supplemental Stream Chemistry Readings

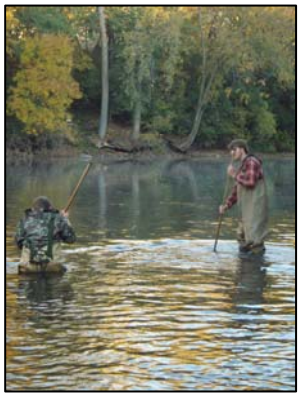
Data presented from the most recent five years. Contact the ACD to request archived data.

Parameter	5/27/2008	9/30/2008	4/29/2009	10/13/2009	4/27/2010	10/29/2010	4/27/2010	9/28/2011	5/22/2012	9/27/2012
pH	7.73	7.7	7.62	7.87	na	7.51	na	8.35	8.14	7.87
Conductivity (mS/cm)	0.284	0.341	0.266	0.291	0.324	0.249	0.324	0.228	0.275	0.239
Turbidity (NTU)	7	4	6	na	2	na	2	na	18	2
Dissolved Oxygen (mg/L)	10.18	7.83	10.53	12.22	9.14	na	9.14	8.7	8.24	8.17
Salinity (%)	0.01	0.01	0.01	0.01	0.01	0	0.01	0	0.01	0
Temperature (°C)	15.3	13.4	12.2	5.2	12	7.2	12	13.8	17.5	10.3

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.

Water resource management should be focused upon protecting the Rum's quality. Some steps to protect the Rum River could include:



- Enforce the building and clear cutting setbacks from the river required by state scenic river laws.
- Retrofit stormwater conveyance systems to provide better water quality treatment in cities including St. Francis and Anoka. Older areas of some communities lack or have little stormwater treatment.
- Use the best available technologies to reduce pollutants delivered to the river and its tributaries through the storm sewer system. This should include all of the watershed, not just those adjacent to the river.
- Education programs to encourage actions by residents that will benefit the river's health.
- Continue water quality monitoring programs.

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 18 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: Alliant Tech Reference Wetland, Alliant Tech Systems property, St. Francis

Cedar Creek, Cedar Creek Natural History Area, East Bethel

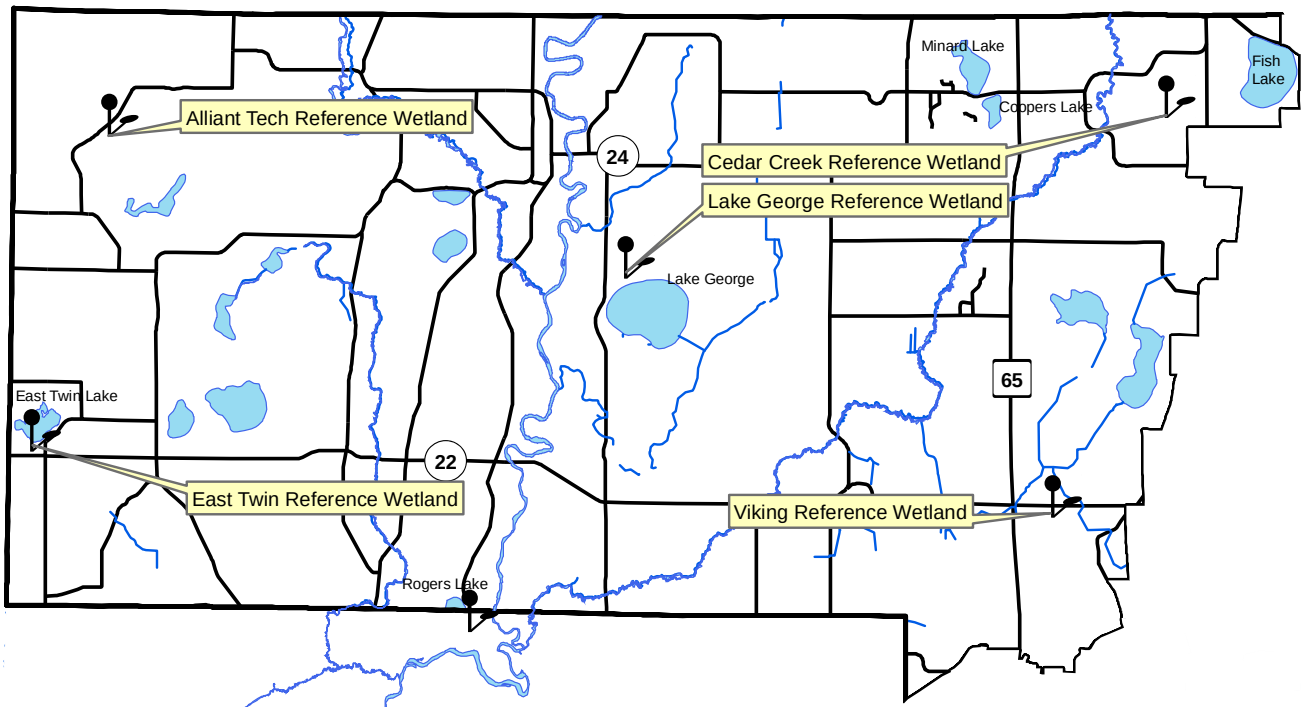
East Twin Reference Wetland, East Twin Township Park, Nowthen

Lake George Reference Wetland, Lake George County Park, Oak Grove

Viking Meadows Reference Wetland, Viking Meadows Golf Course, East Bethel

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

Upper Rum River Watershed Wetland Hydrology Monitoring Sites



Wetland Hydrology Monitoring

ALLIANT TECH REFERENCE WETLAND

Alliant Techsystems Property, St. Francis

Site Information

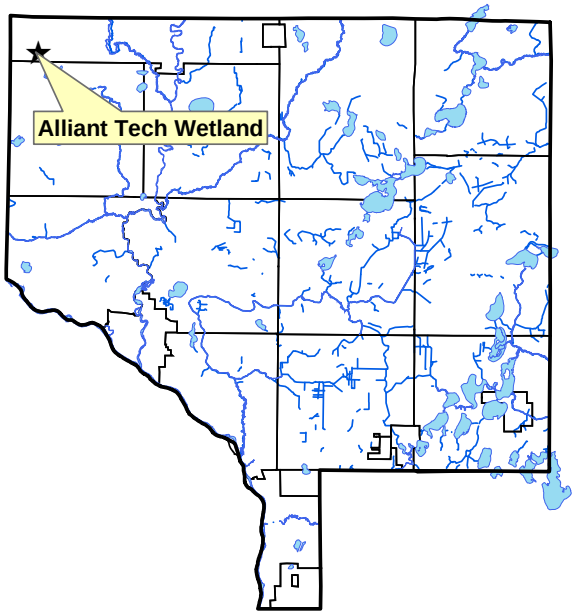
Monitored Since: 2001

Wetland Type: 5

Wetland Size: ~12 acres

Isolated Basin? Yes

Connected to a Ditch? No



Soils at Well Location:

Horizon	Depth	Color	Texture	Redox
A	0-8	N2/0	Mucky loam	-
Bg	8-35	5y5/1	Sandy loam	-

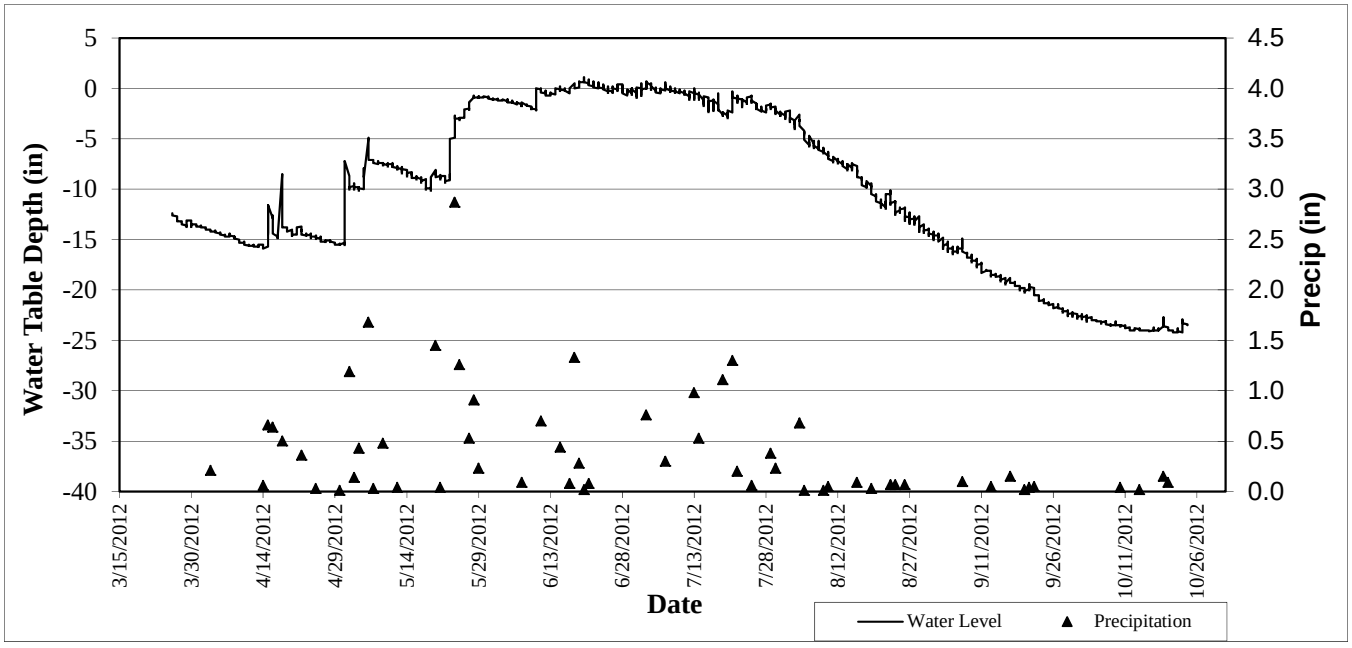
Surrounding Soils: Emmert

Vegetation at Well Location:

Scientific	Common	% Coverage
Carex Spp	Sedge undiff.	90
Lycopus americanus	American Bungleweed	20
Phalaris arundinacea	Reed Canary Grass	5

Other Notes: This wetland lies next to the highway, in a low area surrounded by hilly terrain. It holds water throughout the year, and has a beaver den.

2012 Hydrograph



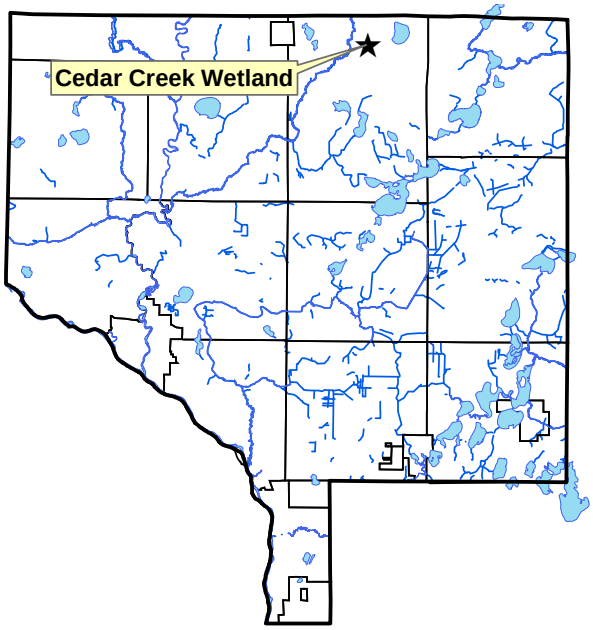
Well depth was 40 inches, so a reading of –40 indicates water levels were at an unknown depth greater than or equal to 40 inches.

Wetland Hydrology Monitoring

CEDAR CREEK REFERENCE WETLAND

Univ. of Minnesota Cedar Creek Natural History Area, East Bethel

Site Information



Monitored Since: 1996

Wetland Type: 6

Wetland Size: unknown, likely >150 acres

Isolated Basin? No

Connected to a Ditch? No

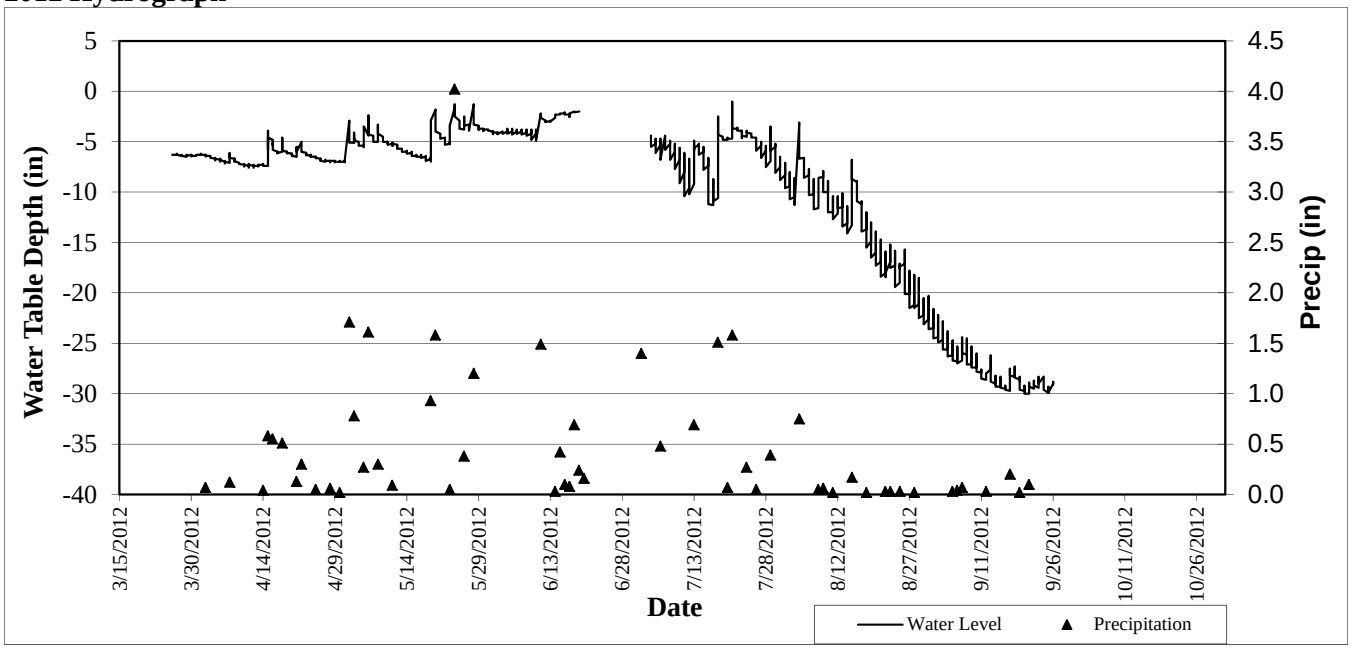
Soils at Well Location: not yet available

Surrounding Soils: Zimmerman

Vegetation at Well Location: not yet available

Other Notes: The Cedar Creek Ecosystem Science Reserve, where this wetland is located, is a University of Minnesota research area. Much of this area, including the area surrounding the monitoring site, is in a natural state. This wetland probably has some hydrologic connection to the floodplain of Cedar Creek, which is 0.7 miles from the monitoring site.

2012 Hydrograph



Well depth was 37 inches, so a reading of –37 indicates water levels were at an unknown depth greater than or equal to 37 inches.

Wetland Hydrology Monitoring

EAST TWIN REFERENCE WETLAND

East Twin Lake Township Park, Nowthen

Site Information

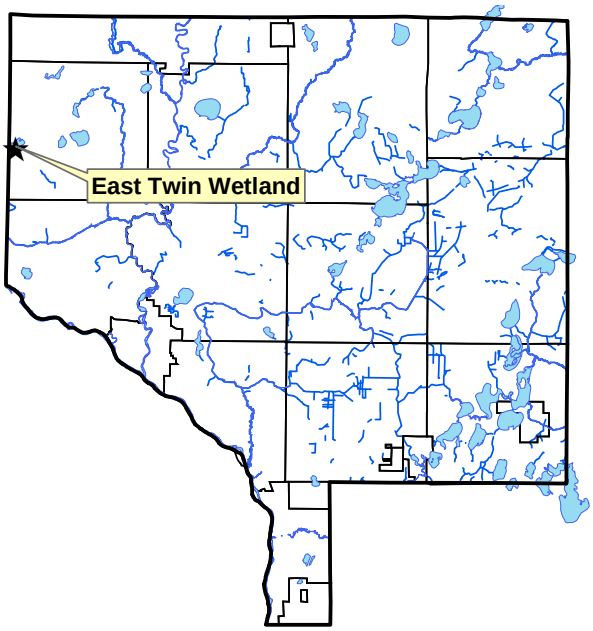
Monitored Since: 2001

Wetland Type: 5

Wetland Size: ~5.9 acres

Isolated Basin? Yes

Connected to a Ditch? No



Soils at Well Location:

Horizon	Depth	Color	Texture	Redox
A	0-8	10yr 2/1	Mucky Loam	-
Oa	Aug-40	N2/0	Organic	-

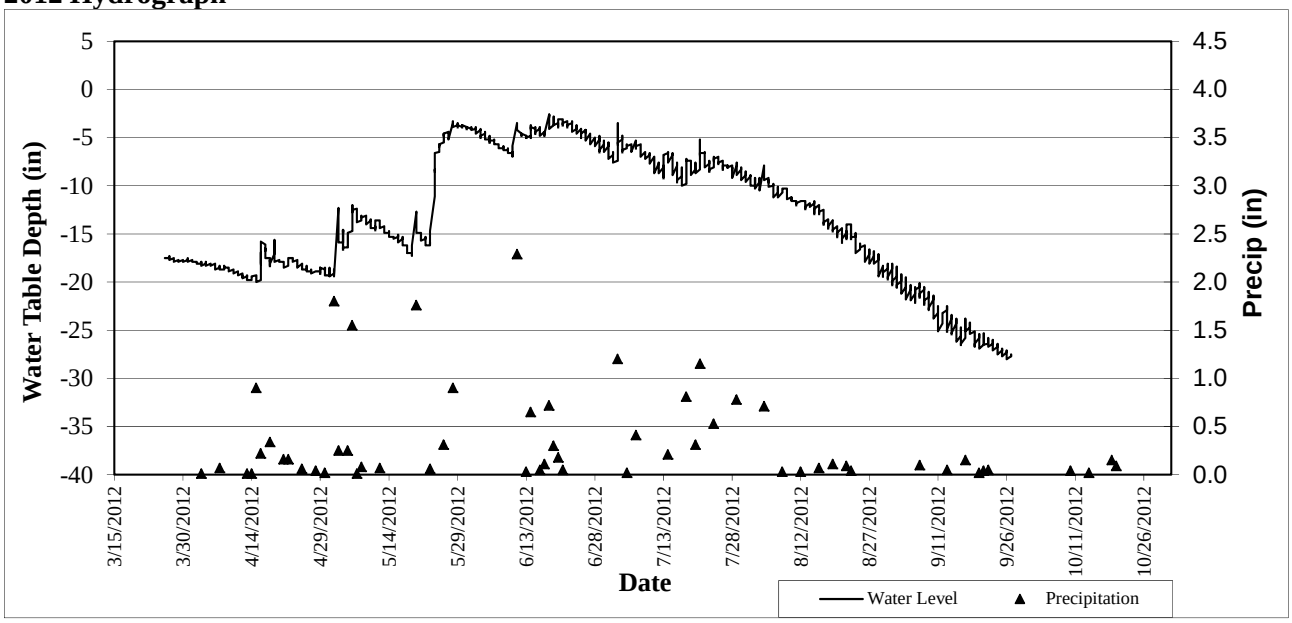
Surrounding Soils: Lake Beach, Growton and Heyder fine sandy loams

Vegetation at Well Location:

Scientific	Common	% Coverage
Phalaris arundinacea	Reed Canary Grass	100
Cornus amomum	Silky Dogwood	30
Fraxinus pennsylvanica	Green Ash	30

Other Notes: This wetland is located within East Twin Lake County Park, and is only 180 feet from the lake itself. Water levels in the wetland are influenced by lake levels.

2012 Hydrograph



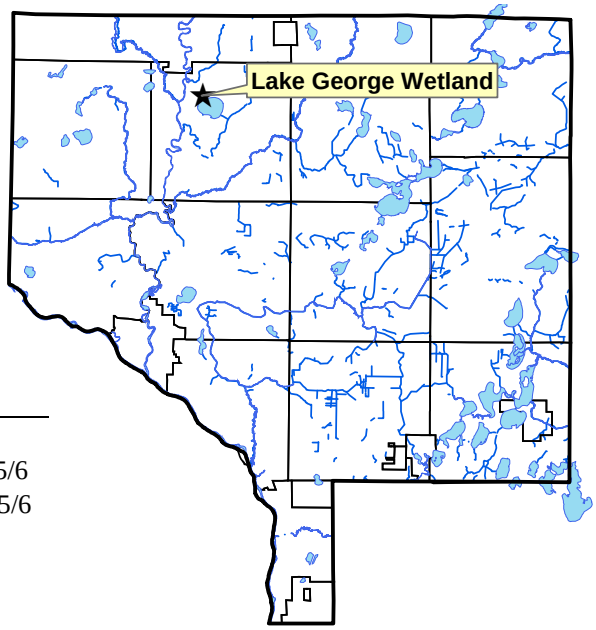
Well depth was 40 inches, so a reading of –40 indicates water levels were at an unknown depth greater than or equal to 40 inches.

Wetland Hydrology Monitoring

LAKE GEORGE REFERENCE WETLAND

Lake George County Park, Oak Grove

Site Information



Monitored Since: 1997

Wetland Type: 3/4

Wetland Size: ~9 acres

Isolated Basin? Yes, but only separated from wetland complexes by roadway.

Connected to a Ditch? No

Soils at Well Location:

Horizon	Depth	Color	Texture	Redox
A	0-8	10yr2/1	Sandy Loam	-
Bg	8-24	2.5y5/2	Sandy Loam	20% 10yr5/6
2Bg	24-35	10gy 6/1	Silty Clay Loam	10% 10yr 5/6

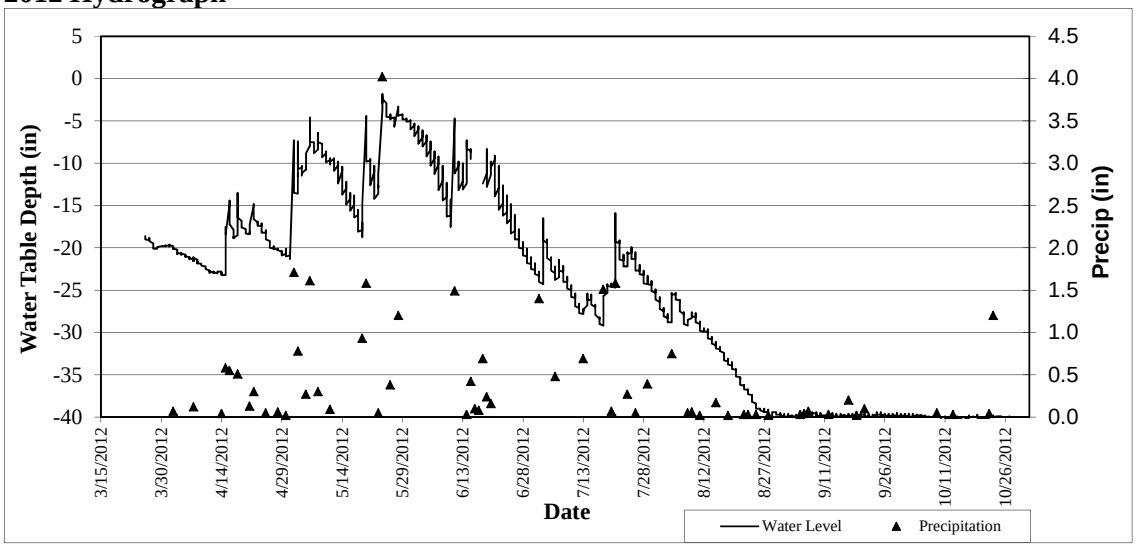
Surrounding Soils: Lino loamy fine sand and Zimmerman fine sand

Vegetation at Well Location:

Scientific	Common	% Coverage
Cornus stolonifera	Red-osier Dogwood	90
Populus tremuloides	Quaking Aspen	40
Quercus rubra	Red Oak	30
Onoclea sensibilis	Sensitive Fern	20
Phalaris arundinacea	Reed Canary Grass	10

Other Notes: This wetland is located within Lake George County Park, and is only about 600 feet from the lake itself. Much of the vegetation within the wetland is cattails.

2012 Hydrograph



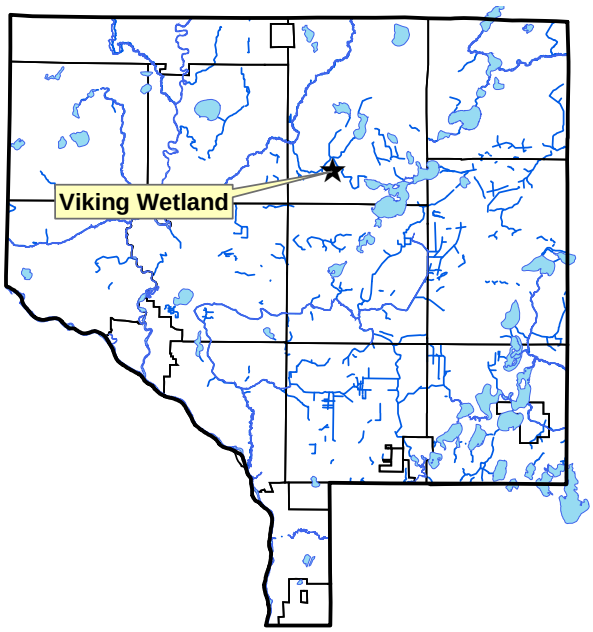
Well depth was 40 inches, so a reading of –40 indicates water levels were at an unknown depth greater than or equal to 40 inches.

Wetland Hydrology Monitoring

VIKING MEADOWS REFERENCE WETLAND

Viking Meadows Golf Course, East Bethel

Site Information



Monitored Since: 1999

Wetland Type: 2

Wetland Size: ~0.7 acres

Isolated Basin? No

Connected to a Ditch? Yes, highway ditch is tangent to wetland

Soils at Well Location:

Horizon	Depth	Color	Texture	Redox
A	0-12	10yr2/1	Sandy Loam	-
Ab	12-16	N2/0	Sandy Loam	-
Bg1	16-25	10yr4/1	Sandy Loam	-
Bg2	25-40	10yr4/2	Sandy Loam	5% 10yr5/6

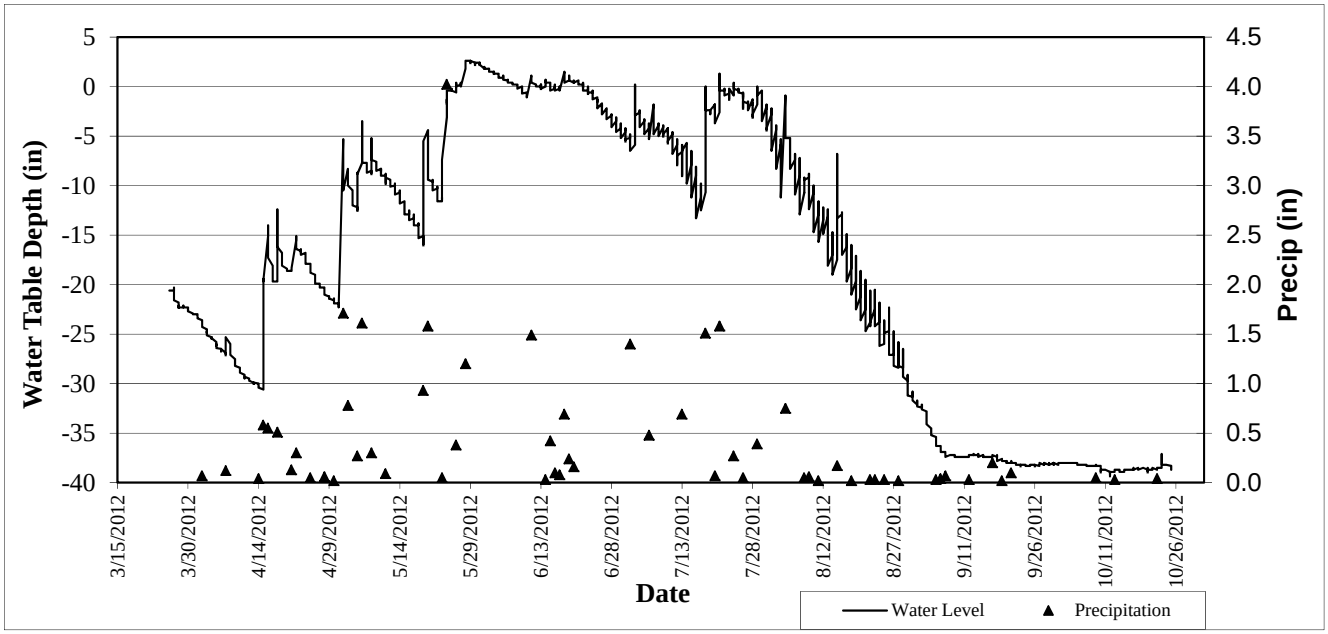
Surrounding Soils: Zimmerman fine sand

Vegetation at Well Location:

Scientific	Common	% Coverage
Phalaris arundinacea	Reed Canary Grass	100
Acer rubrum (T)	Red Maple	75
Acer negundo (T)	Boxelder	20

Other Notes: This wetland is located at the entrance to Viking Meadows Golf Course, and is adjacent to Viking Boulevard (Hwy 22).

2011 Hydrograph



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

Water Quality Grant Fund

Description: The Upper River Watershed Management Organization (URRWMO) partners with the Anoka Conservation District's (ACD) Water Quality Cost Share Program. The URRWMO contributes funds to be used as cost share grants for projects that improve water quality in lakes, streams, or rivers within the URRWMO area. The ACD provides administration of the grants. Grant awards follow ACD policies and generally cover 50% or 70% of materials (see ACD website for full policies). The ACD Board of Supervisors approves any dispersements.

Grant administration is through the Anoka Conservation District for efficiency and simplicity. The ACD administers a variety of other similar grants, thus providing a one-stop-shop for residents. Additionally, the ACD's technical staff provide project consultation and design services at low or no cost, which is highly beneficial for grant applicants. ACD staff also have expertise to process and scrutinize grant requests. Lastly, the ACD Board meets monthly, and can therefore respond to grant requests rapidly, while URRWMO meetings are much less frequent.

The Anoka Conservation District (ACD) and Upper Rum River WMO have both undertaken efforts to promote these types of projects and the availability of grants. For example, in 2007 the URRWMO did a customized mailing to 20 homeowners on East Twin and George Lakes who had been identified with erosion problems or likely to develop problems. The ACD mentions the grants during presentations to lake associations and other community groups, in newsletters, and in website postings. In order to promote these types of projects the ACD also assists landowners throughout projects, including design, materials acquisition, installation, and maintenance.

Purpose: To improve water quality in area lakes, streams and rivers.

Locations: Throughout the watershed.

Results: Projects are reported in the year they are installed. In 2012 a Lake George shoreline restoration was installed at the Erickson property. Followup work on that project is planned for spring 2013, so some dollars remain encumbered.

URRWMO Cost Share Fund Summary

2006 URRWMO Contribution	+	$ 990.00
2006 Expenditures		$ 0.00
2007 URRWMO Contribution	+	$ 1,000.00
2007 Expenditures		$ 0.00
2008 Expenditures		$ 0.00
2009 Expenditures		$ 0.00
2010 URRWMO Contribution	+	$ 500.00
2011 URRWMO Contribution	+	$ 567.00
2010-11 Expenditure Petro streambank stabilization	-	$1,027.52
2011 Expenditure Erickson lakeshore restoration	-	$ 233.15
2012 Expenditure Erickson lakeshore restoration (encumbered)	-	$ 137.98
2012 URRWMO Contribution	+	$1,000.00
Fund Balance		**$ 2,658.35**

Erickson Lakeshore Restoration Summary

Brief Description:

This project will restore 54 feet of Lake George shoreline with native plants and correct minor erosion. Site is at the bottom of a moderately steep slope on a residential property. This shoreline restoration will provide native plants that filter stormwater runoff to the lake and provide habitat benefits. Habitat benefits will be for all shoreline animals including fish, insects, birds, and others. Because the project includes aquatic plantings the benefits to fish and in-lake ecology are greater.

The landowner is active member of the Lake George Improvement District and plans to promote lakeshore restorations with others who live around the lake.

Funding sources:

URRWMO water quality cost share grant	$ 371.60
Landowner	$ 371.60
TOTAL	$ 743.20

In-kind contributions:
Landowner provides installation labor
Project design was provided by the Anoka Conservation District and landowner

URRWMO Website

Description: The Upper Rum River Watershed Management Organization (URRWMO) contracted the Anoka Conservation District (ACD) to design and maintain a website about the URRWMO and the Upper Rum River watershed. The website has been in operation since 2003.

Purpose: 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.

Location: www.AnokaNaturalResources.com/URRWMO

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

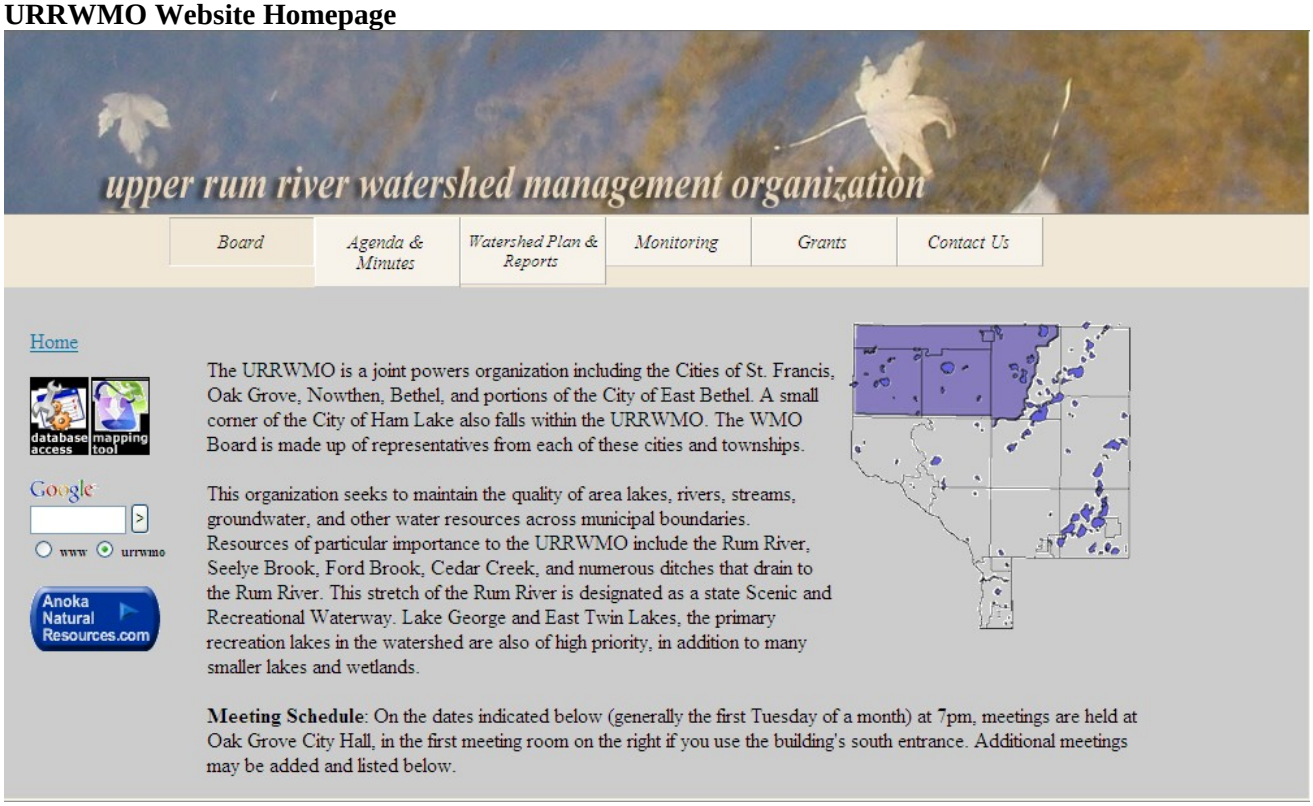
Information about the URRWMO includes:

- 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.

Other tools on the website include:

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

URRWMO Website Homepage



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URRWMO Annual Newsletter

Description: The URRWMO Watershed Management Plan and state rules call for an annual URRWMO newsletter in addition to the website. The URRWMO will produce a newsletter article including information about the URRWMO, its programs, related educational information, and the URRWMO website address. This article will provided to each member city, and they will be asked to include it in their city newsletters.

Purpose: To increase public awareness of the URRWMO and its programs.

Locations: Watershed-wide.

Results: The Anoka Conservation District (ACD) assisted the URRWMO by drafting the annual newsletter article. At their March 6, 2012 the URRWMO discussed topics to be covered in the article. It was decided that the newsletter article should highlight the St. Francis High School Rum River monitoring program, which the URRWMO helps finance.

ACD staff drafted the newsletter article and sent it to the URRWMO Board for review. The URRWMO Board reviewed and edited the draft article. The finalized article was sent to each member community in July 2012, as well as to the Independent School District 15 publication, "The Courier." It was printed in The Courier.

2012 URRWMO Newsletter Article

Rum River benefits from 1,200+ St. Francis High School student volunteers

Science teacher DC Randle declares, "this, they really remember," refeering to his students. Why? It's outdoors, catching critters most have never seen, and the work products get used beyond the classroom. When St. Francis science classes assist with long-term Rum River monitoring near the school, they get memorable lessons in biology and math, while working alongside professionals. Watershed managers are happy too; the school's curriculum produces data they use.

Each spring and fall, students use nets to collect macroinvertebrates – mostly aquatic insects. These small critters serve as a gauge of the river's health. Some types are only found where water quality and habitat is good. Others tolerate poorer conditions. The Minnesota Pollution Control Agency has developed mathematical ways to translate invertebrate samplings into rankings of river health, and made it an official part of state water quality standards.

Over the last 12 years, 1,200+ students have donned waders and captured thousands of invertebrates. They are accompanied by biologists from the Anoka Conservation District who provide instructions on methodology. Their captures are identified and students calculate indices of river health. Then, everything goes to the Anoka Conservation District for quality checks and reporting.

Students have found a rich invertebrate community and many sensitive kinds like stoneflies and mayflies. The Rum River is in great shape. It's invertebrates reflect a river system that has good water quality, has a plentiful fishery, and is used by an assortment of wildlife.

One agency paying special attention to water quality is the Upper Rum River Watershed Management Organization (URRWMO). They provide funding for the equipment, professional guidance, and final analyses. The URRWMO is a special purpose unit of government covering St. Francis, Nowthen, Oak Grove, Bethel, and parts of East Bethel and Ham Lake.

To see a video about St. Francis High School and Rum River monitoring, and learn more about the URRWMO visit their website – www.AnokaNaturalResources.com/URRWMO.

Invertebrate photo source: Hennepin Conservation District

Web Video about Student Biomonitoring

Description: A website video was produced about the URRWMO's St. Francis High School Student Biomonitoring program to improve public visibility of URRWMO projects and bolster the WMO's website.

Purpose: To increase public awareness of the URRWMO and its programs.

Locations: Watershed-wide.

Results: In spring 2012 the Anoka Conservation District (ACD) shot video footage of students capturing invertebrates at the Rum River in spring 2012. The teacher secured written permission from parents to use images of their children. After the fieldwork, ACD assembled a three minute video. After a review by the URRWMO Board, that video was posted to the URRWMO website. A companion newspaper article was written by the ACD and printed in The Courier newspaper, which serves the St. Francis area. Later, the video was noticed by the Friends of the Rum River group, who emailed it broadly to their entire distribution list. Finally, a link to the video was sent to all URRWMO member community staff with a request that it also be forwarded to city council members.

The video can be watched at www.AnokaNaturalResources.com/URRWMO

URRWMO 2011 Annual Report to BWSR

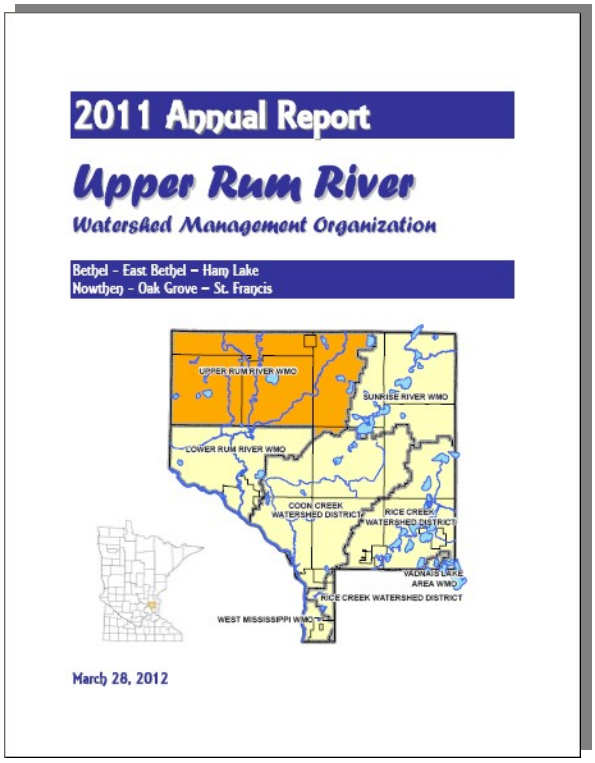
Description: The Upper Rum River Watershed Management Organization (URRWMO) is required by law to submit an annual report to the Minnesota Board of Water and Soil Resources (BWSR), the state agency with oversight authorities. This report consists of an up-to-date listing of URRWMO Board members, activities related to implementing the URRWMO Watershed Management Plan, the status of municipal water plans, financial summaries, and other work results. The report is due annually 120 days after the end of the URRWMO's fiscal year (April 30th).

Purpose: To document required progress toward implementing the URRWMO Watershed Management Plan and to provide transparency of government operations.

Locations: Watershed-wide

Results: The Anoka Conservation District assisted the URRWMO with preparation of a 2011 Upper Rum River WMO Annual Report. ACD provided copies of this report and a cover letter to the entire URRWMO Board on March 29, 2012 for review. On April 13, 2011 the final draft was sent to the URRWMO Chair, Todd Miller. The Chair submitted the report to BWSR. The full report can be viewed at the URRWMO website.

Cover



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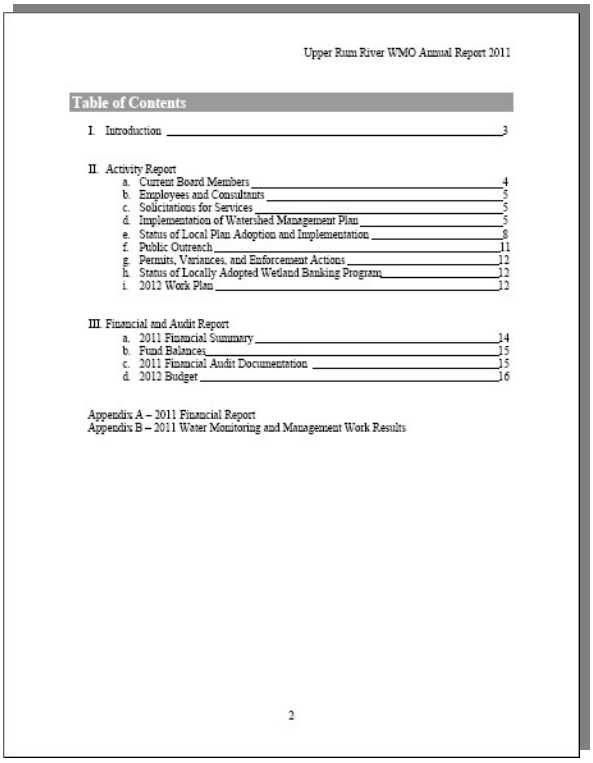

2013-2017 URRWMO Water Monitoring Plan

Description: The URRWMO's Watershed Management Plan included a schedule for monitoring lakes, rivers, and other waterbodies through 2012. In 2012 the URRWMO was to update this monitoring plan.

Purpose: To ensure adequate water resource management and financial planning.

Locations: Watershed-wide

Results: The Anoka Conservation District drafted an update of the URRWMO water monitoring plan to cover 2013-2017, and presented it to the URRWMO for consideration or revision in November 2012. The 2013-2017 monitoring plan is consistent with the approaches and schedules that had been used the previous five years. Because of this, the MN Board of Water and Soil Resources informed the WMO that it was not necessary to go through the formality of the watershed plan amendment process. The URRWMO is, however, ensuring that member cities and other agencies receive a copy of the update.

The updated monitoring plan can be found on the URRWMO website.

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.

Upper Rum River Watershed Financial Summary

Upper Rum River Watershed	Ref Wet	Lake Lvl	Student Biomon	Cost Share/ Lakescape/ Rain Garden	URRWMO Admin	URRWMO Outreach/Promo	Total
Revenues							
URRWMO	1100	680	795	233	1085	1690	5583
State	175	0	0	0	0	0	175
Anoka Conservation District	175	0	0	0	696	0	871
County Ag Preserves	175	0	145	1508	0	0	1828
Regional/Local	175	0	0	0	0	0	175
Other Service Fees	175	0	0	0	0	0	175
Local Water Planning	175	84	0	0	0	0	259
TOTAL	2149	764	940	1742	1781	1690	9066
Expenses-							
Capital Outlay/Equip	20	7	11	0	25	9	72
Personnel Salaries/Benefits	1843	655	745	0	1515	1160	5919
Overhead	146	52	60	0	140	95	493
Employee Training	4	2	1	0	4	3	14
Vehicle/Mileage	40	14	16	0	25	27	122
Rent	81	30	30	0	73	55	270
Program Participants	0	0	0	1742	0	0	1742
Program Supplies	14	4	77	0	0	0	94
McKay Expenses	0	0	0	0	0	0	0
TOTAL	2149	764	940	1742	1781	1348	8725
NET	0	0	0	0	0	342	342

Recommendations

- **Actively participate in the MPCA Rum River WRAPP (Watershed Restoration and Protection Plan) which is beginning in 2013.** This WRAPP is an assessment of the entire Rum River watershed. This is an opportunity for the URRWMO to prioritize and coordinate efforts with upstream entities and state agencies.
- **Consider a St. Francis stormwater assessment** that is aimed at identifying and installing cost effective stormwater treatment opportunities before water is discharged into the Rum River. The assessment should be focused on those portions of the city that are generally lacking sufficient stormwater treatment.
- **Promote groundwater conservation.** Metropolitan Council models predict 3+ft drawdown of surface waters in parts of the URRWMO by 2030, and 5+ft by 2050.
- **Correct water quality issues discovered during the 2010 Rum River survey**. Several locations of riverbank erosion were documented. Landowners were contacted, and some responded, however none have committed to corrective work. Part of the reason is that these projects are expensive and the landowner would bear some of the cost.
- **Encourage public works departments to implement measures to minimize road deicing salt applications**. These salts are the most noticeable form of Rum River deterioration in the URRWMO. MN DOT, University of Minnesota Extension, and others offer training on this topic.
- **Investigate the condition of Ditch 19, the only inlet to Lake George**. Residents have complained that condition of the ditch and water control structures are contributing to low lake water levels in recent years. Anoka County is the legal ditch authority.
- **Facilitate resident efforts to control aquatic plant growth on Rogers Lake** as a means to improving low dissolved oxygen problems. In 2010 a neighborhood meeting was held, and while there was enthusiasm from residents, the needed follow-up by residents did not occur.
- **Promote water quality improvement projects** for lakes, streams, and rivers. Cost share grants are available through the URRWMO and ACD to encourage landowners to do projects that will have public benefits to water quality. Technical assistance for landowners is available through the Anoka Conservation District.