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
URRWMO Annual Newsletter	URRWMO, ACD	3-100
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

Weekly water level monitoring in lakes. The past five years are shown below, and all historic **Description:** 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

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



•••



Rogers Lake Levels – last 5 years



Coopers Lake Levels – last 5 years





Rogers Lake Levels - last 24 years



Minard Lake Levels - last 5 years



Lake George Levels – last 24 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. An index that utilizes known pollution tolerances for each family. Lower Family Biotic Index (FBI) 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

 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

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)



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
ЕРТ	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		

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

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





ALLIANT TECH REFERENCE WETLAND

Alliant Techsystems Property, St. Francis

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

CEDAR CREEK REFERENCE WETLAND

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



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



EAST TWIN REFERENCE WETLAND

East Twin Lake Township Park, Nowthen

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

	Lake George County Park, Oak Grove							
<u>Site</u>	Informati	<u>on</u>						
Mo	nitored Sin	ice:	1997			Lake George Wetland		
Wet	tland Type	:	3/4					
Wet	tland Size:		~9 ac	eres				
Isolated Basin?		Yes, but only separated from wetland complexes by roadway.		from oadway.				
Con	nected to a	a Ditch?	No			~ Sometrick all		
Soil	s at Well L	location:						
	Horizon	Depth	Color	Texture	Redox			
	А	0-8	10yr2/1	Sandy Loam	-			
	Bg	8-24	2.5y5/2	Sandy Loam	20% 10yr5/			
	2Bg	24-35	10gy 6/1	Silty Clay Loam	10% 10yr 5	/6 5		
Sur	rounding S	Soils:	Lino	loamy fine sand ar	nd			
	U		Zimn	nerman fine sand				
Veg	etation at `	Well Loca	ation:					
	a .		~					

LAKE GEORGE REFERENCE WETLAND

		Common	0/ Comora ao
_	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



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
	А	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:			2	Zimmerman fin	e 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



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

Fund Balance		\$ 2.658.35
2012 URRWMO Contribution	+	\$1,000.00
2012 Expenditure Erickson lakeshore restoration (encumbered)	-	\$ 137.98
2011 Expenditure Erickson lakeshore restoration	-	\$ 233.15
2010-11 Expenditure Petro streambank stabilization	-	\$1,027.52
2011 URRWMO Contribution	+	\$ 567.00
2010 URRWMO Contribution	+	\$ 500.00
2009 Expenditures		\$ 0.00
2008 Expenditures		\$ 0.00
2007 Expenditures		\$ 0.00
2007 URRWMO Contribution	+	\$ 1,000.00
2006 Expenditures		\$ 0.00
2006 URRWMO Contribution	+	\$ 990.00

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



more on next page

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



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 30 th).						
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 River WMO Annual Report. ACD provided copies of this report and a cover letter to the en						

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.



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	1100	680	795	233	1085	1690	5583
ORTOWING	1100	000	195	200	1005	1030	5505
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	11	0	0	0	94
	2140	764	040	1742	1701	1240	0
	2149	/ 04	940	1742	1/61	1340	240
NET	U	U	0	0	0	342	J4Z

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.