TO: The Minnesota Board of Water and Soil Resources
FROM: Lower Rum River Watershed Management Organization
Todd Haas, Chairperson
DATE: March, 2012
SUBJECT: Annual Activity Report for Fiscal Year 2011
Begin Date: 2-1-11 End Date: 1-31-12

In response to Minnesota Board of Water and Soil Resources (BWSR) annual requirements, the Lower Rum River Watershed Management Organization (LRRWMO), created by a joint powers agreement, submits the following:

I. LIST BOARD MEMBERS, ADVISORS, EMPLOYEES AND CONSULTANTS
   • See Appendix A

II. REPORTING YEAR’S WORK PLAN
   A. LIST GOALS/OBJECTIVES IDENTIFIED IN THE REPORTING YEAR’S WORK PLAN:
   B. LIST ACHIEVEMENTS FROM REPORTING YEAR’S WORK PLAN:
   C. LIST THOSE ITEMS IDENTIFIED IN REPORTING YEAR’S WORK PLAN NOT ACCOMPLISHED, AND GIVE AN EXPLANATION OF WHY THEY COULDN’T BE ACCOMPLISHED:

GOAL: Adoption of Third Generation Water Management Plan.

ACHIEVEMENT: Objective reached.
The LRRWMO, at its meeting of January 19, 2012, adopted the Third Generation Water Management Plan on a unanimous vote. During fiscal 2012, articles will be placed in the newsletters for each member City regarding this accomplishment as well as the link to the LRRWMO’s website.

GOAL: Raise public awareness of LRRWMO by: posting meeting agenda and inviting public to participate.

ACHIEVEMENT: Objective reached.
• The LRRWMO maintains a website where meeting announcements, agendas, and minutes are posted. Meeting agendas are also posted in a public place and indicate “PUBLIC WELCOME TO ATTEND.” See pages 4-24 to 4-25 of Appendix B for additional detail.
• The production of a video, comprised of video clips collected by ACD staff, is in process and will be completed during fiscal 2012.

• The City of Coon Rapids held a Green Expo in April of 2011 at its City Hall during which “Splish-Splash” an educational video was displayed. The video discusses the importance of clean water, the scarcity of this valuable resources and problems that can occur if it is not conserved.

• The City of Ramsey held an Environmental Expo and Tree Sales on April 30, 2011 from 9 a.m. to 2 p.m. There were a number of exhibitors that participated representing an array of industries, including recycling, energy conservation, alternative energy, green cleaning products, watershed and wellhead protection, community gardening and water conservation among others. The event included a keynote presentation by polar explorer Lonnie Dupre, who discussed, at that time, his latest expedition, which was an attempted solo ascent of Mt. McKinley in Alaska as well as information on effects of climate change that he has seen first-hand. The event also included a tree sale that offered a wide variety of trees and shrubs at reduced prices.

• As required by its MS4 Permit, the City of Ramsey held its annual stormwaer meeting on March 4, 2011.

GOAL: Conduct a Rum River canoe trip in 2011 with Board Members and DNR.

ACHIEVEMENT: Objective reached.
On September 14, 2011, the City of Anoka coordinated a canoe/pontoon trip of the Rum River with the LRRWMO, Andover Community Development Director Carlberg, Anoka Engineering Technician Zastrow, Anoka Public Works staff member, Ramsey Senior Planner Gladhill, and QCTV Staff Houston and cameraman/photographer, to inspect for areas of erosion and Code violations. A video of this canoe trip is currently in production and will be completed during fiscal 2012.

GOAL: Maintain web site created by the Anoka Conservation District that details the WMO's contact information, boundaries, wetlands regulatory information, meeting agendas and minutes, permit process, and testing and biomonitoring data.

ACHIEVEMENT: Objective reached.
Website is: www.AnokaNaturalResources.com/LRRWMO
See page 4-23 of Appendix B for additional detail.
GOAL: Contract with the Anoka Conservation District (ACD) in 2011 to conduct monitoring of the following: lake level (Itasca, Round, Rogers, and Sunfish/Grass Lakes); stream water quality/chemical and biomonitoring (Rum River); and wetland hydrology (AEC Reference Wetland, Connexus Energy Property on Industrial Avenue, Rum River Central Reference Wetland, and Rum River Central Park).

ACHIEVEMENT: Objective reached.
This data has been entered into the ACD data base and is included in the ACD annual report, which is attached as Appendix B, see pages 4-1 to 4-20.

GOAL: Encourage water quality improvement projects by continuing to offer water quality improvement cost share grants to residents.

ACHIEVEMENT: Objective reached.
The LRRWMO contributed $1,000 in 2006 and $1,000 in 2009 to a cost share grant fund administered by the Anoka Conservation District (ACD). Funds were not expended until 2008 when $376.37 was expended for two projects, both involving cedar tree riverbank stabilizations on the Rum River. In 2009, $52.05 was expended for Rusin Rum riverbank bluff stabilization. The LRRWMO made no additional contributions in 2010 or 2011. During 2011, the LRRWMO provided a cost share grant in the amount of $543.46 for installation of a cedar tree revetment bordering the Rum River in Ramsey. See page 4-21 of Appendix B for additional detail.

The City of Ramsey accomplished its largest reforestation program for boulevard tree plantings during 2011. Approximately 70 trees were planted that will result in direct benefits to water volume reductions and increased water quality.

GOAL: Increase public involvement with LRRWMO by: Continuing to identify residents to assist with lake monitoring in conjunction with the Anoka Conservation District.

ACHIEVEMENT: Objective reached.
The LRRWMO worked in conjunction with the ACD to identify residents to monitor water levels for Round, Rogers, and Sunfish/Grass Lakes.

GOAL: Continue effort in the enforcement of the 1991 Wetland Conservation Act as the Local Governmental Unit (LGU) for the cities of Andover, Anoka, and Ramsey within the LRRWMO jurisdiction; Coon Rapids has assumed its own LGU authority.

ACHIEVEMENT: Objective reached.
The LRRWMO continues to monitor enforcement of the 1991 Wetland Conservation Act as the LGU for the cities of Andover, Anoka, and Ramsey.
III. PROJECTED WORK PLAN FOR UP-COMING FISCAL YEAR

A. LIST MAIN GOALS AND OBJECTIVES OF YOUR WORK PLAN FOR THE NEXT FISCAL YEAR:
   1. Per the LRRWMO Water Management Plan, institute an “annual reporting template” to collect an annual status report from member communities.
   2. Raise public awareness of LRRWMO by: Posting meeting agenda and inviting public to participate.
   3. Conduct a Rum River canoe trip in June of 2011 to check for violations with Board Members, MnDNR, and Anoka Conservation District, and encourage representatives from each of the four cities to participate or any other agency that would be interested.
   4. Maintain web site created by the Anoka Conservation District that details the WMO’s contact information, boundaries, wetlands regulatory information, meeting agendas and minutes, permit process, and testing and biomonitoring data.
   5. Contract with the Anoka Conservation District in 2011 for lake level monitoring (Itasca, Round, and Rogers Lakes), lake water quality monitoring (Rogers Lake), biomonitoring with Anoka High School students (Rum River), and hydrology monitoring in one reference wetland.
   6. Encourage water quality improvement projects by continuing to offer water quality improvement cost share grants to residents.
   7. Increase public involvement with LRRWMO by: Continuing to identify residents to assist with lake monitoring in conjunction with the Anoka Conservation District.
   8. Continue effort in the enforcement of the 1991 Wetland Conservation Act as the Local Governmental Unit (LGU) for the cities of Andover, Anoka, and Ramsey within the LRRWMO jurisdiction; Coon Rapids has assumed its own LGU authority.

IV. SUMMARY OF PERMITS, PROJECT REVIEWS, VARIANCES, AND ENFORCEMENT ACTIONS

A. TOTAL NUMBER AND SUMMARY OF THE TYPES OF PERMITS ISSUED AND DENIED BY THE WMO:
   See Appendix C.

B. TOTAL NUMBER AND SUMMARY OF THE TYPES OF PROJECTS REVIEWED BY THE WMO:
   See Appendix C.
C. SUMMARY OF VARIANCES TO PLAN OR LOCAL PLAN (LIST TYPES AND GRANTOR):
No variances were issued. Plans/proposals were required to meet the requirements of the LRRWMO and/or other state agencies.

D. SUMMARY OF ENFORCEMENT ACTIONS TAKEN RELATIVE TO PLAN OR LOCAL PLAN (LIST TYPES AND LGU):
No enforcement actions were taken in fiscal 2011 by the LRRWMO and the Minnesota Department of Natural Resources (DNR) issued zero Cease and Desist Orders within the LRRWMO jurisdiction.

V. SUMMARY OF WATER QUALITY MONITORING DATA
ATTACH YOUR MET COUNCIL SUMMARY REPORT OR BRIEFLY SUMMARIZE, WHICH BODIES OF WATER WERE MONITORED, WHAT PARAMETERS WERE MEASURED, THE FREQUENCY OF MONITORING AND WHO COLLECTED THE DATA. INDICATE ANY TRENDS NOTED IF AN ANALYSIS OF THE DATA WAS CONDUCTED:

Water quality monitoring data is administered by the Anoka Conservation District (ACD). Appendix B is a report of water monitoring work completed in 2011.

VI. STATUS OF LOCAL PLANS ADOPTION
A. LIST OF LOCAL PLANS APPROVED BY WMO AND DATE OF APPROVAL:

Andover: Approved as of 2005
Anoka: Approved as of 2001
Coon Rapids: Approved as of 2004
Ramsey: Approved as of 2008

B. DATE DUE OF LOCAL PLANS:

Andover: As determined by BWSR
Anoka: As determined by BWSR
Coon Rapids: As determined by BWSR
Ramsey: As determined by BWSR
VII. SUMMARY OF WRITTEN CORRESPONDENCE

ATTACH A COPY OF THE WRITTEN COMMUNICATION FOR GENERAL CIRCULATION THE WMO USED TO ACHIEVE COMPLIANCE WITH MS 103B.227, SUBD. 4

See Appendix D.

VIII. BIENNIAL SOLICITATION FOR PROFESSIONAL SERVICES

WAS THE ORGANIZATION REQUIRED TO SOLICIT PROPOSALS FOR PROFESSIONAL, ENGINEERING AND LEGAL SERVICES THIS YEAR?

Requests for Proposals will be obtained during fiscal 2012, following adoption of the Third Generation Plan. Objective pending.

IX. STATUS OF LOCALLY ADOPTED WETLAND BANKING PROGRAM

SUMMARIZE ANY WETLAND REPLACEMENT IN WMO DONE THROUGH THE USE OF WETLAND BANKING CREDITS, BANKING CREDITS ESTABLISHED, CREDIT BALANCES, AND WHAT LGUs APPROVED SUCH REPLACEMENTS:

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

See Appendix E.
<table>
<thead>
<tr>
<th>CITY OF ANDOVER</th>
<th>TELEPHONE</th>
<th>CITY OF ANOKA</th>
<th>TELEPHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Todd Haas (Chair)</td>
<td>(763) 767-5131</td>
<td>Carl Anderson (Treasurer)</td>
<td>Cel: (612) 518-5317</td>
</tr>
<tr>
<td>Assistant Public Works Director</td>
<td>FAX: (763) 755-8923</td>
<td>City Councilmember</td>
<td>(763) 427-2262</td>
</tr>
<tr>
<td>Andover City Hall</td>
<td></td>
<td>1625 S. Second Avenue</td>
<td><a href="mailto:carl.anderson.eng@comcast.net">carl.anderson.eng@comcast.net</a></td>
</tr>
<tr>
<td>1685 Crosstown Blvd. NW</td>
<td></td>
<td>Anoka, MN 55303</td>
<td></td>
</tr>
<tr>
<td>Andover, MN 55304</td>
<td></td>
<td><a href="mailto:t.haas@andovermn.gov">t.haas@andovermn.gov</a></td>
<td></td>
</tr>
<tr>
<td>Bruce Perry (alternate)</td>
<td>(763) 427-4485</td>
<td>Jeff Weaver (alternate)</td>
<td>763-421-5522</td>
</tr>
<tr>
<td>17337 Roanoke Street NW</td>
<td></td>
<td>City Councilmember</td>
<td></td>
</tr>
<tr>
<td>Andover, MN 55304</td>
<td></td>
<td>2015 First Avenue</td>
<td><a href="mailto:angler55303@yahoo.com">angler55303@yahoo.com</a></td>
</tr>
<tr>
<td>CITY OF COON RAPIDS</td>
<td></td>
<td>Anoka, MN 55303</td>
<td></td>
</tr>
<tr>
<td>Doug Vierzba (Vice Chair)</td>
<td>(763) 767-6465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Engineer</td>
<td>FAX: (763) 767-6573</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11155 Robinson Drive</td>
<td><a href="mailto:vierzba@ci.coon-rapids.mn.us">vierzba@ci.coon-rapids.mn.us</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids, MN 55433</td>
<td></td>
<td>Steve Gatlin (alternate)</td>
<td></td>
</tr>
<tr>
<td>Director of Public Works</td>
<td>(763) 767-6458</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids City Hall</td>
<td>FAX: (763) 767-6573</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11155 Robinson Drive</td>
<td></td>
<td>Coon Rapids, MN 55433-3761</td>
<td><a href="mailto:sgaatlin@coonrapsdmn.gov">sgaatlin@coonrapsdmn.gov</a></td>
</tr>
<tr>
<td>CITY OF RAMSEY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah Strommen (Secretary)</td>
<td>763-576-4362</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Councilmember</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7550 Sunwood Drive</td>
<td><a href="mailto:sstrommen@ci.ramsey.mn.us">sstrommen@ci.ramsey.mn.us</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey, MN 55303</td>
<td></td>
<td>Randy Backous(alternate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(763) 576-4364</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>City Councilmember</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7550 Sunwood Drive</td>
<td><a href="mailto:rbackous@ci.ramsey.mn.us">rbackous@ci.ramsey.mn.us</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ramsey, MN 55303</td>
<td></td>
</tr>
<tr>
<td>STAFF LIAISON &amp; TAC COMMITTEE MEMBER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tim Himmer,</td>
<td><a href="mailto:thimmer@ci.ramsey.mn.us">thimmer@ci.ramsey.mn.us</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey City Engineer</td>
<td>(763) 433-9893</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATTORNEY</td>
<td>TELEPHONE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charlie LeFevere</td>
<td>(612) 337-9215</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kennedy &amp; Graven</td>
<td>FAX: (612) 337-9310</td>
<td></td>
<td></td>
</tr>
<tr>
<td>470 US Bank Plaza</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 South Sixth Street</td>
<td><a href="mailto:clefevere@kennedy-graven.com">clefevere@kennedy-graven.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minneapolis, MN 55402</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Assistant, Pat</td>
<td>(612) 337-9278</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANOKA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carl Anderson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Councilmember</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1625 S. Second Avenue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anoka, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF COON RAPIDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doug Vierzba</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Councilmember</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11155 Robinson Drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids, MN 55433</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF RAMSEY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah Strommen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Councilmember</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7550 Sunwood Drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANDOVER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Todd Haas (Chair)</td>
<td>(763) 767-5131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Public Works Director</td>
<td>FAX: (763) 755-8923</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1685 Crosstown Blvd. NW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover, MN 55304</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bruce Perry (alternate)</td>
<td>(763) 427-4485</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17337 Roanoke Street NW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover, MN 55304</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANOKA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carl Anderson (Treasurer)</td>
<td>Cel: (612) 518-5317</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Councilmember</td>
<td>(763) 427-2262</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1625 S. Second Avenue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anoka, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF COON RAPIDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doug Vierzba (Vice Chair)</td>
<td>(763) 767-6465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Engineer</td>
<td>FAX: (763) 767-6573</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11155 Robinson Drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids, MN 55433</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF RAMSEY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah Strommen (Secretary)</td>
<td>763-576-4362</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Councilmember</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7550 Sunwood Drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANDOVER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Todd Haas (Chair)</td>
<td>(763) 767-5131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Public Works Director</td>
<td>FAX: (763) 755-8923</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1685 Crosstown Blvd. NW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover, MN 55304</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANOKA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carl Anderson (Treasurer)</td>
<td>Cel: (612) 518-5317</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Councilmember</td>
<td>(763) 427-2262</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1625 S. Second Avenue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anoka, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF COON RAPIDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doug Vierzba (Vice Chair)</td>
<td>(763) 767-6465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Engineer</td>
<td>FAX: (763) 767-6573</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11155 Robinson Drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids, MN 55433</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF RAMSEY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah Strommen (Secretary)</td>
<td>763-576-4362</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Councilmember</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7550 Sunwood Drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANDOVER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Todd Haas (Chair)</td>
<td>(763) 767-5131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Public Works Director</td>
<td>FAX: (763) 755-8923</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1685 Crosstown Blvd. NW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover, MN 55304</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANOKA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carl Anderson (Treasurer)</td>
<td>Cel: (612) 518-5317</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Councilmember</td>
<td>(763) 427-2262</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1625 S. Second Avenue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anoka, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF COON RAPIDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doug Vierzba (Vice Chair)</td>
<td>(763) 767-6465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Engineer</td>
<td>FAX: (763) 767-6573</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11155 Robinson Drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coon Rapids, MN 55433</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF RAMSEY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah Strommen (Secretary)</td>
<td>763-576-4362</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Councilmember</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7550 Sunwood Drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramsey, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANDOVER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Todd Haas (Chair)</td>
<td>(763) 767-5131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Public Works Director</td>
<td>FAX: (763) 755-8923</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover City Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1685 Crosstown Blvd. NW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andover, MN 55304</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY OF ANOKA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carl Anderson (Treasurer)</td>
<td>Cel: (612) 518-5317</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Councilmember</td>
<td>(763) 427-2262</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1625 S. Second Avenue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anoka, MN 55303</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# DRAFT 2011 WORK RESULTS
## LOWER RUM RIVER WATERSHED

<table>
<thead>
<tr>
<th>Task</th>
<th>Partners</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Levels</td>
<td>LRRWMO, ACD, volunteers, MN DNR</td>
<td>4-2</td>
</tr>
<tr>
<td>Stream Water Quality – Chemical</td>
<td>LRRWMO, MC, ACD</td>
<td>4-4</td>
</tr>
<tr>
<td>Stream Water Quality – Biological</td>
<td>LRRWMO, ACD, ACAP, Anoka High School</td>
<td>4-15</td>
</tr>
<tr>
<td>Wetland Hydrology</td>
<td>LRRWMO, ACD, ACAP</td>
<td>4-18</td>
</tr>
<tr>
<td>Water Quality Grant Fund</td>
<td>LRRWMO, ACD, landowners</td>
<td>4-21</td>
</tr>
<tr>
<td>Water Quality Improvement Projects</td>
<td>LRRWMO, ACD, landowners</td>
<td>4-22</td>
</tr>
<tr>
<td>Public Education - Web Video</td>
<td>LRRWMO, ACD</td>
<td>4-23</td>
</tr>
<tr>
<td>LRRWMO Website</td>
<td>LRRWMO, ACD</td>
<td>4-24</td>
</tr>
<tr>
<td>Member Community Annual Reporting Template</td>
<td>LRRWMO, ACD</td>
<td>4-26</td>
</tr>
<tr>
<td>Financial Summary</td>
<td></td>
<td>4-27</td>
</tr>
<tr>
<td>Recommendations</td>
<td></td>
<td>4-27</td>
</tr>
<tr>
<td>Groundwater Hydrology (obwells)</td>
<td>ACD, MNDNR</td>
<td></td>
</tr>
<tr>
<td>Precipitation</td>
<td>ACD, volunteers</td>
<td></td>
</tr>
</tbody>
</table>

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

## 2011 Monitoring Sites
- Lake Levels
- Stream Water Quality
- Stream Biomonitoring
- Wetland Hydrology
- Precipitation
- Groundwater Hydrology (Obwells)
Lake Level Monitoring

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

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

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

Results: Water levels were measured on Rogers, Round, and Sunfish lakes 26, 20, and 10 times respectively. The level in Itasca Lake was measured much more frequently because a WL40 data logger was installed to record daily water levels. Reading a manual gauge was not possible because water was low, forcing placement of the gauge far from shore where volunteers could not read it.

In 2011 all of these lakes had much higher water levels than in other recent years due to high rainfall totals in spring and early summer. In late summer very little rainfall fell and water levels dropped continuously on all lakes. However the magnitude of these changes were very different on each lake (see graphs below).

Round Lake had its highest water levels since 1998. Between 1991 and 1998 water levels were regularly at or higher than the peak seen in 2011. The lake retreated 0.71 feet in late summer.

Rogers Lake exceeded the previous highest observed water level by 0.57 feet.

Itasca Lake had less impressive water levels. While it rose about 3 feet from fall 2010 and reached the highest water level since 2009, it was still 2-3 feet lower than the water levels that were historically observed. While all the lakes in the Lower Rum River watershed are mostly groundwater drive, with few or no surface inlets, Itasca may be the most reflective of groundwater because it lies within an undeveloped area. Therefore, it is not surprising that its response to rainfall is dampened. The long term water level decline at this lake and Round Lake are concerning indicators of groundwater depletion.

Sunfish Lake reached its highest water level since 1991.

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.
Stream Water Quality - Chemical Monitoring

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

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

Locations:
- Rum River at Co Rd 24
- Rum River at Co Rd 7
- Rum River at the Anoka Dam

Results: Results are presented on the following page, with a focus on comparing river conditions from upstream to downstream. More detailed reporting for the Metropolitan Council WOMP monitoring station, including additional parameters and analysis are presented elsewhere by the Metropolitan Council (see http://www.metrocouncil.org/Environment/RiversLakes/).

2011 Rum River Monitoring Sites
Stream Water Quality Monitoring

**Rum River**

<table>
<thead>
<tr>
<th>Location</th>
<th>STORET SiteID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rum River at Co. Rd. 24 (Bridge St), St. Francis</td>
<td>S000-066</td>
</tr>
<tr>
<td>Rum River at Co. Rd. 7 (Roanoke St), Ramsey</td>
<td>S004-026</td>
</tr>
<tr>
<td>Rum River at Anoka Dam, Anoka</td>
<td>S003-183</td>
</tr>
</tbody>
</table>

**Years Monitored**

- At Anoka Dam – 1996-2011 by the Met Council WOMP program

**Background**

The Rum River is regarded as one of Anoka County’s highest quality and most valuable water resources. It is designated as a state scenic and recreational river throughout Anoka County, except south of the county fairgrounds in Anoka. It is used for boating, tubing, and fishing. Much of western Anoka County drains to the Rum River. Subwatersheds that drain to the Rum include Seelye, Trott, and Ford Brooks, and Cedar Creek.

The extent to which water quality improves or is degraded within Anoka County has been unclear. The Metropolitan Council has monitored water quality at the Rum’s outlet to the Mississippi River since 1996. This water quality and hydrologic data is well suited for evaluating the river’s water quality just before it joins the Mississippi River. Monitoring elsewhere has been sporadic and sparse. Water quality changes might be expected from upstream to downstream because land use changes dramatically from rural residential in the upstream areas of Anoka County to suburban in the downstream areas.

**Methods**

In 2004, 2009, 2010 and 2011 monitoring was conducted at three locations simultaneously to determine if Rum River water quality changes in Anoka County, and if so, generally where changes occur. The Upper and Lower Rum River Watershed Management Organizations contributed to this work and monitoring sites were strategically located near the upper and lower boundary of each organization’s jurisdictional boundary. The Metropolitan Council maintains a permanent monitoring station at the Anoka Dam, the farthest downstream monitoring site. The Metropolitan Council monitoring was coordinated to occur with the watershed organization monitoring so the data and costs could be shared. The Anoka Conservation District did the field work for both Metropolitan Council and the watershed organizations, ensured monitoring for both programs was conducted simultaneously so the data and costs could be shared, and reports the data together for a more comprehensive analysis of the river from upstream to downstream.

The river was monitored during both storm and baseflow conditions by grab samples. Eight water quality samples were taken each year; half during baseflow and half following storms. Storms were generally defined as one-inch or more of rainfall in 24 hours or a significant snowmelt event combined with rainfall. In some years, particularly the drought year of 2009, smaller storms were sampled because of a lack of larger storms. All storms sampled were significant runoff events. Parameters tested with portable meters included pH, conductivity, turbidity, temperature, salinity, and dissolved oxygen. Parameters tested by water samples sent to a state-certified lab included total phosphorus, total suspended solids, chlorides, sulfates, and hardness. Ten additional parameters were tested by the Metropolitan Council at their laboratory for the Anoka Dam site only and are not reported here. During every sampling the water level (stage) was recorded. The monitoring station at the Anoka Dam includes...
automated equipment that continuously tracks water levels and calculates flows. Water level and flow data for other sites was obtained from the US Geological Survey, who maintains a hydrological monitoring site at Viking Boulevard.

The purpose of this report is to make an upstream to downstream comparison of Rum River water quality. It includes only parameters and dates that were simultaneously tested at all three sites. It does not include additional parameters tested at the Anoka Dam or additional monitoring events at that site. For that information, see Metropolitan Council reports at http://www.metrocouncil.org/Environment/RiversLakes. All other raw data can be obtained from the Anoka Conservation District and is also available through the Minnesota Pollution Control Agency’s EQuIS database, which is available through their website.

Results and Discussion

Overall, Rum River water quality is good throughout Anoka County, however it does decline slightly below the County Road 7 bridge (i.e. in the Cities of Andover, Anoka, and Ramsey) and during storms. The declines in water quality below that point are modest, as are declines in water quality during storms. Dissolved pollutants (as measured by conductivity and chlorides), total phosphorus, turbidity, and total suspended solids were all generally near or below the median of all 34 Anoka County streams that have been monitored, while pH and dissolved oxygen levels were appropriate.

Two areas of concern were noted. First, dissolved pollutants increased at each monitoring site downstream. Dissolved pollutants were highest during baseflow, indicating pollutants have infiltrated into the groundwater which feeds the river and tributaries during baseflow. Road deicing salts are likely the most significant dissolved pollutant. Secondly, total suspended solids increased notably below County Road 7. This was most pronounced during storms.

It is important to recognize the limitations of this report. The data is only from 2004, 2009, 2010, and 2011 when all three sites were monitored simultaneously to allow comparisons. It includes drought years (2009), years with slightly above normal precipitation (2010), and years with some excessively wet and some excessively dry months (2004 and 2011). We did not sample any extreme floods when river water quality is likely worst. If a more detailed analysis of river water quality is desired, data from many years and a variety of conditions is available for the Anoka Dam site through the Metropolitan Council. Their work includes composite samples throughout storms.

On the following pages data are presented and discussed for each parameter. The last section outlines management recommendations. The Rum River is an exceptional waterbody, and its protection and improvement should be a high priority.

Conductivity and chlorides

Conductivity and chlorides are measures of dissolved pollutants. Dissolved pollutant sources include urban road runoff, industrial chemicals, and others. Metals, hydrocarbons, road salts, and others are often of concern in a suburban environment. Conductivity is the broadest measure of dissolved pollutants we used. It measures electrical conductivity of the water; pure water with no dissolved constituents has zero conductivity. Chlorides tests for chloride salts, the most common of which are road de-icing chemicals. Chlorides can also be present in other pollutant types, such as wastewater. These pollutants are of greatest concern because of the effect they can have on the stream’s biological community. They can also be of concern because the Rum River is upstream from the Twin Cities drinking water intakes on the Mississippi River.
Conductivity during baseflow and storm conditions  Grey squares are individual readings from 2004, grey diamonds are 2009 readings, grey triangles are 2010 readings, and black squares are 2011 readings. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).

Chloride during baseflow and storm conditions  Grey squares are individual readings from 2004, grey diamonds are 2009 readings, grey triangles are 2010 readings, and black squares are 2011 readings. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).

Conductivity is acceptably low in the Rum River, but increases downstream (see figures above) and during baseflow. Median conductivity from upstream to downstream was 0.245 mS/cm, 0.248 mS/cm, and 0.266
mS/cm, respectively. This is lower than the median for 34 Anoka County streams of 0.362 mS/cm. The maximum observed conductivity in the Rum River was 0.365 mS/cm.

Conductivity was lowest at all sites during storms, suggesting that stormwater runoff contains fewer dissolved pollutants than the surficial water table that feeds the river during baseflow. High baseflow conductivity has been observed in most other nearby streams too, studied extensively, and the largest cause has been found to be road salts that have infiltrated into the shallow aquifer. Geologic materials also contribute, but to a lesser degree.

Conductivity increased from upstream to downstream. During baseflow this increase from upstream to downstream reflects greater road densities and deicing salt application. During storms, the higher conductivity downstream is reflective of greater stormwater runoff and pollutants associated with the more densely developed lower watershed.

Chloride results parallel those found for conductivity (see figures above), supporting the hypothesis that chloride is an important dissolved pollutant. Chloride levels in the Rum River (median 11, 13, and 14 mg/L from upstream to downstream) are slightly lower than the median for Anoka County streams of 17 mg/L. The highest observed value was 20 mg/L, though higher levels may have occurred during snowmelts which were not monitored. The levels observed are much lower than the Minnesota Pollution Control Agency’s (MPCA) chronic standard for aquatic life of 230 mg/L. Like conductivity, chlorides were slightly higher during baseflow than storms at each site and increased from upstream to downstream. Road deicing salt infiltration into the shallow groundwater is likely the primary contributor, as described above.

**Total Phosphorus**

Total phosphorus in the Rum River is acceptably low and is similar to the median for all other monitored 34 Anoka County streams (see figure below). This nutrient is one of the most common pollutants in our region, and can be associated with urban runoff, agricultural runoff, wastewater, and many other sources. The median phosphorus concentration at each of the three monitored sites was 106, 106, and 101 ug/L. These upstream-to-downstream differences are negligible and there is no trend of increasing phosphorus downstream. All sites occasionally experience phosphorus concentrations higher than the median for Anoka County streams of 135 ug/L. All of the highest observed total phosphorus readings were during storms, including the maximums at each site of 230, 234, and 761 ug/L (upstream to downstream). In all, phosphorus in the Rum River is at acceptable levels but should continue to be an area of pollution control effort as the area urbanizes.

One 2010 total phosphorus reading was excessively high, but we feel this outlier is likely an error. On September 22 a reading of 761 ug/L was recorded at the Anoka Dam. This was recorded as a baseflow sample because no recent rains had occurred, but was during a period of extended high water. River stage was approximately 0.5 feet higher than during the other baseflow samples. During this event dissolved phosphorus was analyzed in addition to total phosphorus. Dissolved phosphorus was only 13% of total phosphorus. Therefore most of the total phosphorus must be particulate phosphorus. Yet, inconsistently, there were few particulates in the water; total suspended solids was only 6 mg/L. Likewise, nothing in the field notes suggest unusually high turbidity. If this reading of 761 ug/L total phosphorus is excluded, as it probably should be, the next highest observed TP at this site is 209 ug/L.
Total phosphorus during baseflow and storm conditions  Grey squares are individual readings from 2004, grey diamonds are 2009 readings, grey triangles are 2010 readings, and black squares are 2011 readings. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).

Turbidity and Total Suspended Solids (TSS)

Turbidity and total suspended solids (TSS) are two different measurements of solid material suspended in the water. Turbidity is measured by refraction of a light beam passed through a water sample. It is most sensitive to large particles. Total suspended solids is measured by filtering solids from a water sample and weighing the filtered material. The amount of suspended material is important because it affects transparency and aquatic life, and because many other pollutants are attached to particles. Many stormwater treatment practices such as street sweeping, sumps, and stormwater settling ponds target sediment and attached pollutants. Suspended solids in the Rum River are moderate, and highest during storms and at the farthest downstream site. The results for turbidity and TSS differ, lending insight into the types of particles that are problematic.

It is important to note the suspended solids can come from sources within and outside of the river channel. Sources on land include soil erosion, road sanding, and others. Riverbank erosion and movement of the river bottom also contributes to suspended solids. A moderate amount of this “bed load” is natural and expected.

In the Rum River, turbidity was low with only slight increases during storms and a very slight decrease at downstream monitoring sites (see figure below). The median turbidity at each site was 9, 8, and 7 FNRU (upstream to downstream), which is similar to the median for Anoka County streams of 8 FNRU. Turbidity was elevated on a few occasions, especially during storms. The maximum observed was 66 FNRU during a snowmelt event in 2011. The Rum River’s turbidity exceeded the Minnesota Pollution Control Agency’s water quality standard of 25 NTU during only five of 99 events (5%).

Across all years, TSS was similar at the two upstream sites, but higher at the Anoka Dam (see figure below). The countywide TSS median for streams is 12 mg/L. The median at all the Rum River sites was the same - 8 mg/L. However the readings ranged highest at the farthest downstream site, the Anoka Dam.
At all the sites median TSS during storms was higher than during baseflow. At the upstream site the difference between median TSS during storms and baseflow was 3 mg/L, while at County Road 7 it was 4 mg/L and at the Anoka Dam 9 mg/L. TSS during storms was much more variable due to variability in storms sampled.

The maximum readings and moderate increases during storms are not unexpectedly high for a large river, and are within the range that should be considered healthy. At the same time, the increase in TSS between County Road 7 and the Anoka Dam during storms is noteworthy. It is not unexpected given the more dense land development between these two sites, but also speaks to the effectiveness of stormwater management practices like settling ponds. The river’s water quality is in good condition, likely due in part to these practices, however they do not eliminate all impact. Rigorous stormwater treatment should occur as the Rum River watershed develops, or the collective pollution caused by many small developments will seriously impact the river. Bringing stormwater treatment up to date in older developments is also important.

Differences between TSS and turbidity lend insight into the nature of any problems. TSS showed increases at the downstream monitoring site, while turbidity did not. Turbidity is most sensitive to large particles. Therefore, the downstream increases are likely due to smaller particles. Other pollutants, such as phosphorus and metals, are most highly correlated with smaller particles. These other pollutants can “hitch a ride” on smaller particles because of their greater surface area and, in the case of certain soils, ionic charge. Furthermore, small particles stay suspended in the water column and therefore are more likely to be transported by stream flows and are more difficult to remove with stormwater practices like settling ponds.

In 2011 TSS during storms was very low at the two farthest downstream monitoring sites, and this is likely due to hydrologic conditions. The first half of 2011, when our storm samples were taken, was an extremely wet period. River levels were chronically high. While we did sample immediately following storms, the runoff from that storm was a relatively low percentage of overall flow. Because TSS was low during these periods of very high flow, sediment from the stream bed and bank erosion is relatively low in the Rum River. Sediment carried by storm runoff is the larger source of suspended solids.

It should be noted that the data presented here do not include monitoring of any large flood events. The water is known to become muddier during such floods.
**Turbidity during baseflow and storm conditions**  Grey squares are individual readings from 2004, grey diamonds are 2009 readings, grey triangles are 2010 readings, and black squares are 2011 readings. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).

**Total suspended solids during baseflow and storm conditions**  Grey squares are individual readings from 2004, grey diamonds are 2009 readings, grey triangles are 2010 readings, and black squares are 2011 readings. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).
**Dissolved Oxygen**

Dissolved oxygen is necessary for aquatic life, including fish. Organic pollution consumes oxygen when it decomposes. If oxygen levels fall below 4 mg/L aquatic life begins to suffer. In the Rum River dissolved oxygen was always above 5.5 mg/L at all monitoring sites.

**Dissolved oxygen during baseflow and storm conditions**  
Grey squares are individual readings from 2004, grey diamonds are 2009 readings, grey triangles are 2010 readings, and black squares are 2011 readings. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).

![Dissolved Oxygen Graph](image)

**pH**

pH refers to the acidity of the water. The Minnesota Pollution Control Agency’s water quality standard is for pH to be between 6.5 and 8.5. The Rum River is regularly within this range (see figure below). Each of the three sites exceeded 8.5 on one occasion, but the highest was only 8.85. This rare and modest exceedance of the state water quality standard is not concerning.

It is interesting to note that pH is lower during storms than during baseflow. This is because the pH of rain is typically lower (more acidic). While acid rain is a longstanding problem, its affect on this aquatic system is small.
**pH during baseflow and storm conditions**  Grey squares are individual readings from 2004, grey diamonds are 2009 readings, grey triangles are 2010 readings, and black squares are 2011 readings. Box plots show the median (middle line), 25th and 75th percentile (ends of box), and 10th and 90th percentiles (floating outer lines).

---

**Summary and Recommendations**

The Rum River’s water quality is very good. It does show some deterioration in the downstream areas that are most developed. Protection of the Rum River should be a high priority for local officials. Large population increases are expected for the Rum River’s watershed within Anoka County and have the potential to degrade water quality unless carefully sited and managed. Development pressure is likely to be especially high near the river because of its scenic and natural qualities. Measures to maintain the Rum River’s good water quality should include:

- Enforce the building and clear-cutting setbacks from the river required by state scenic rivers laws to avoid bank erosion problems and protect the river’s scenic nature.
- Use the best available technologies to reduce pollutants delivered to the river and its tributaries through the storm sewer system. Any new development should consider low impact development strategies that minimize stormwater runoff production. Aggressive stormwater treatment should be pursued in all areas of the watershed, not just those adjacent to the river. The area’s soils are well suited to stormwater treatment by infiltration.
- Seek improvements to the existing stormwater conveyance system below County Road 7. Total suspended solids in the river increase in this portion of the watershed during storms.
- Utilize all practical means to reduce road deicing salt applications. These may include more efficient application methods, application only in priority areas, alternate chemicals, or others. Road salt infiltration into the shallow groundwater has become a regional problem. Deicing salts are apparent year-round in the groundwater that feeds area streams.
- Survey the river by boat for bank erosion problems and initiate projects to correct them. Both the Lower and Upper Rum River Watershed Management Organizations, which serve Anoka County, have completed this work. It should be periodically repeated.
- Continue education programs to inform residents of the direct impact their actions have on the river’s health.
• Continue regular water quality monitoring. A reasonable baseline of four years of data that has been collected, so future monitoring every 1-3 years seems reasonable. Frequency of monitoring should be most frequent in the next few years and following any major projects that might positively or negatively impact the river. Additionally, periodic monitoring of the primary tributary streams should also occur every 2-3 years. Coordinating simultaneous monitoring across communities and watershed organizations is highly desirable.

• Investigate E. coli bacteria. In 2011 the MPCA sampled for E. coli at the outlet of the Rum River into the Mississippi River. They found levels that exceeded state standards. It is unknown how much of the Rum River’s length might be declared “impaired” based upon this data. It is desirable to do additional bacteria monitoring upstream to define the extent of the problem. Bacteria is a difficult pollutant to reduce.

• Engage the entire watershed. To date, most efforts to monitor the Rum River have occurred in Anoka County by the Upper and Lower Watershed Management Organizations. This is the farthest downstream part of the watershed. A broader scale effort is needed to protect the river. Strong encouragement from already-active partners is needed to engage those who are inactive.
Stream Water Quality – Biological Monitoring

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

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

Locations: Rum River behind Anoka High School, south side of Industry Ave, Anoka

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

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

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

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

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

<table>
<thead>
<tr>
<th>FBI</th>
<th>Stream Quality Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00-3.75</td>
<td>Excellent</td>
</tr>
<tr>
<td>3.76-4.25</td>
<td>Very Good</td>
</tr>
<tr>
<td>4.26-5.00</td>
<td>Good</td>
</tr>
<tr>
<td>5.01-5.75</td>
<td>Fair</td>
</tr>
<tr>
<td>5.76-6.50</td>
<td>Fairly Poor</td>
</tr>
<tr>
<td>6.51-7.25</td>
<td>Poor</td>
</tr>
<tr>
<td>7.26-10.00</td>
<td>Very Poor</td>
</tr>
</tbody>
</table>

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

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

Last Monitored
By ACD staff in 2011

Monitored Since
2001

Student Involvement
0 students in 2011, approximately 410 since 2001

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

Results
Anoka High School planned to monitor the river in 2011 but was unable so the monitoring was done by Anoka Conservation District staff. The school could not monitor in spring because of chronic high water that did not recede until June. In fall, no ecology class was taught.

The results for spring 2011 were better than most previous years, while fall results were typical of the past. In spring more EPT families were found than ever before at this site and the FBI score was the second best. This was well above the indices typical of Anoka County streams. This sampling was different from most previous efforts in that sampling was done by professionals and a greater percentage of sampling was in the main channel rather than backwaters. However this was also true in fall when indices were typical of past efforts at this site and near or below typical results for the county.

Summarized Biomonitoring Results for Rum River behind Anoka High School

![Graph showing biomonitoring results over time, with data points for # Families, EPT, and FBI. The graph includes data from 2001 to 2011, with a mean line for comparison.]}
Biomonitoring Data for the Rum River behind Anoka High School
Data presented from the most recent five years. Contact the ACD to request archived data.

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2010</th>
<th>2011</th>
<th>2011</th>
<th>Mean</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Season</td>
<td>Spring</td>
<td>Fall</td>
<td>Spring</td>
<td>Fall</td>
<td>Spring</td>
<td>Fall</td>
<td>Spring</td>
<td>Fall</td>
<td>2011 Anoka Co.</td>
<td>1998-2011 Anoka Co.</td>
</tr>
<tr>
<td>FBI</td>
<td>8.60</td>
<td>8.00</td>
<td>7.00</td>
<td>6.80</td>
<td>7.80</td>
<td>7.20</td>
<td>7.30</td>
<td>4.70</td>
<td>7.30</td>
<td>5.3</td>
</tr>
<tr>
<td># Families</td>
<td>10</td>
<td>14</td>
<td>15</td>
<td>24</td>
<td>26</td>
<td>28</td>
<td>22</td>
<td>12</td>
<td>15.8</td>
<td>14.5</td>
</tr>
<tr>
<td>EPT</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>4.4</td>
</tr>
<tr>
<td>Date</td>
<td>7-May</td>
<td>22-Oct</td>
<td>13-Oct</td>
<td>8-May</td>
<td>28-Sep</td>
<td>18-May</td>
<td>7-Oct</td>
<td>16-Jun</td>
<td>5-Oct</td>
<td></td>
</tr>
<tr>
<td>Sampled By</td>
<td>AHS</td>
<td>AHS</td>
<td>AHS</td>
<td>AHS</td>
<td>AHS</td>
<td>AHS</td>
<td>ACD</td>
<td>ACD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sampling Method</td>
<td>MIH</td>
<td>MIH</td>
<td>MIH</td>
<td>MIH</td>
<td>MIH</td>
<td>MIH</td>
<td>MIH</td>
<td>MIH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean # Individuals/Rep.</td>
<td>208</td>
<td>244</td>
<td>626</td>
<td>880</td>
<td>585</td>
<td>443</td>
<td>816</td>
<td>604</td>
<td>188</td>
<td></td>
</tr>
<tr>
<td># Replicates</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Dominant Family</td>
<td>Corixidae</td>
<td>Coenagrionidae</td>
<td>Baetidae</td>
<td>Siphlonuridae</td>
<td>Hyalellidae</td>
<td>Gastropoda</td>
<td>Hyalellidae</td>
<td>baetidae</td>
<td>hyalellidae</td>
<td></td>
</tr>
<tr>
<td>% Dominant Family</td>
<td>91.8</td>
<td>37.3</td>
<td>26.5</td>
<td>40.7</td>
<td>39.1</td>
<td>31.8</td>
<td>34.1</td>
<td>57.5</td>
<td>63.3</td>
<td></td>
</tr>
<tr>
<td>% Ephemeroptera</td>
<td>5.3</td>
<td>0</td>
<td>26.5</td>
<td>48.2</td>
<td>0.9</td>
<td>8.1</td>
<td>0.9</td>
<td>59.3</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td>% Trichoptera</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
<td>0.2</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>% Plecoptera</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.6</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
<td>3.8</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Supplemental Stream Chemistry Readings
Data presented from the most recent five years. Contact the ACD to request archived data.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>8.5</td>
<td>8.5</td>
<td>7.7</td>
<td>7.75</td>
<td>7.91</td>
<td>7.82</td>
<td>7.24</td>
<td>7.84</td>
<td>7.98</td>
</tr>
<tr>
<td>Conductivity (mS/cm)</td>
<td>0.283</td>
<td>0.243</td>
<td>0.348</td>
<td>0.276</td>
<td>0.423</td>
<td>0.207</td>
<td>0.399</td>
<td>0.296</td>
<td>0.296</td>
</tr>
<tr>
<td>Turbidity (NTU)</td>
<td>17</td>
<td>13</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/L)</td>
<td>11.41</td>
<td>9.72</td>
<td>8.99</td>
<td>10.82</td>
<td>8.76</td>
<td>6.93</td>
<td>na</td>
<td>6.85</td>
<td>7.91</td>
</tr>
<tr>
<td>Salinity (%)</td>
<td>0.01</td>
<td>0</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Temperature (°C)</td>
<td>15.3</td>
<td>10.6</td>
<td>12.3</td>
<td>17.2</td>
<td>15.5</td>
<td>14.8</td>
<td>12.2</td>
<td>20.7</td>
<td>15.3</td>
</tr>
</tbody>
</table>

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

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

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

One additional factor to consider when comparing the up and downstream monitoring results is the type of sampling location. Sampling near Anoka was conducted mostly in a backwater area that has a mucky bottom and does not receive good flow. This area is unlikely to be occupied by families which are pollution intolerant because those families generally favor rocky habitats and require high dissolved oxygen not found in stagnant areas.
Wetland Hydrology

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

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

**Locations:** AEC Reference Wetland, Connexus Energy Property on Industry Ave, Ramsey

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

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

---

**Lower Rum River Watershed Wetland Hydrology Monitoring Sites**

![Map of Lower Rum River Watershed with monitoring sites marked]
Wetland Hydrology Monitoring

AEC Reference Wetland

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

Site Information
Monitored Since: 1999
Wetland Type: 3
Wetland Size: ~18 acres
Isolated Basin?: No, probably receives storm water
Connected to a Ditch?: No

Soils at Well Location:

<table>
<thead>
<tr>
<th>Horizon</th>
<th>Depth</th>
<th>Color</th>
<th>Texture</th>
<th>Redox</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0-15</td>
<td>10yr2/1</td>
<td>Sandy Loam</td>
<td>-</td>
</tr>
<tr>
<td>Bw</td>
<td>15-40</td>
<td>10yr3/2</td>
<td>Gravelly Sandy loam</td>
<td>-</td>
</tr>
</tbody>
</table>

Surrounding Soils: Hubbard coarse sand

Vegetation at Well Location:

<table>
<thead>
<tr>
<th>Scientific</th>
<th>Common</th>
<th>% Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Populus tremuloides</td>
<td>Quaking Aspen</td>
<td>30</td>
</tr>
<tr>
<td>Salix bebbiana</td>
<td>Bebb Willow</td>
<td>30</td>
</tr>
<tr>
<td>Carex Spp</td>
<td>Sedge undiff.</td>
<td>30</td>
</tr>
<tr>
<td>Solidago canadensis</td>
<td>Canada Goldenrod</td>
<td>20</td>
</tr>
</tbody>
</table>

Other Notes: Well is located at the wetland boundary.

2011 Hydrograph

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

**RUM RIVER CENTRAL REFERENCE WETLAND**

Rum River Central Regional Park, Ramsey

### Site Information
- **Monitored Since:** 1997
- **Wetland Type:** 6
- **Wetland Size:** ~0.8 acres
- **Isolated Basin?** Yes
- **Connected to a Ditch?** No

### Soils at Well Location:

<table>
<thead>
<tr>
<th>Horizon</th>
<th>Depth</th>
<th>Color</th>
<th>Texture</th>
<th>Redox</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0-12</td>
<td>10yr2/1</td>
<td>Sandy Loam</td>
<td>-</td>
</tr>
<tr>
<td>Bg1</td>
<td>12-26</td>
<td>10ry5/6</td>
<td>Sandy Loam</td>
<td>-</td>
</tr>
<tr>
<td>Bg2</td>
<td>26-40</td>
<td>10yr5/2</td>
<td>Loamy Sand</td>
<td>-</td>
</tr>
</tbody>
</table>

### Surrounding Soils:
Zimmerman fine sand

### Vegetation at Well Location:

<table>
<thead>
<tr>
<th>Scientific</th>
<th>Common</th>
<th>% Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phalaris arundinacea</td>
<td>Reed Canary Grass</td>
<td>40</td>
</tr>
<tr>
<td>Corylus americanum</td>
<td>American Hazelnut</td>
<td>40</td>
</tr>
<tr>
<td>Onoclea sensibilis</td>
<td>Sensitive Fern</td>
<td>30</td>
</tr>
<tr>
<td>Rubus strigosus</td>
<td>Raspberry</td>
<td>30</td>
</tr>
<tr>
<td>Quercus rubra</td>
<td>Red Oak</td>
<td>20</td>
</tr>
</tbody>
</table>

### Other Notes:
Well is located at the wetland boundary.

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

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

Results: Projects reported in the year they are installed. In 2011 the Blackburn Rum Riverbank Stabilization used $543.46 of LRRWMO cost share dollars.

LRRWMO Cost Share Fund Summary

<table>
<thead>
<tr>
<th>Year</th>
<th>LRRWMO Contribution</th>
<th>Expense</th>
<th>Fund Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>+ $1,000.00</td>
<td>- $150.91</td>
<td>$1,028.12</td>
</tr>
<tr>
<td>2008</td>
<td>- $225.46</td>
<td>- $52.05</td>
<td>$1,028.12</td>
</tr>
<tr>
<td>2009</td>
<td>+ $1,000.00</td>
<td>- $543.46</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>- $52.05</td>
<td>- $0</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>- $543.46</td>
<td>- $0</td>
<td></td>
</tr>
</tbody>
</table>

Blackburn Rum Riverbank Stabilization

Anoka Conservation District (ACD) staff installed a cedar tree revetment on a residential property that borders the Rum River in Ramsey during the fall of 2011. Cedar tree revetments are a cost-effective, bioengineering practice that can be used to stabilize actively eroding streambanks. The Blackburn property had moderate bank undercutting that was in the beginning stages of creating a more serious issue. Installation of the 55 foot cedar tree revetment will slow or stop the erosion and reduce the likelihood of a much larger and more expensive corrective project in the future. It benefits river water quality by reducing sediment delivered to the river, and improves habitat.

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

Project Funding

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRRWMO Water Quality Cost Share</td>
<td>$543.46</td>
</tr>
<tr>
<td>ACD Water Quality Cost Share</td>
<td>$543.45</td>
</tr>
<tr>
<td>Landowner</td>
<td>$1,086.91</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$2,173.82</td>
</tr>
</tbody>
</table>

Methods

Before

After

4-21
**Water Quality Improvement Projects**

**Description:** Projects on either public or private property that will improve water quality, such as repairing streambank erosion, restoring native shoreline vegetation, or rain gardens. These projects are partnerships between the landowner, the Anoka Conservation District, and sometimes with grant funding from the watershed organization or the Anoka Conservation District.

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

**Results:** Projects are described in a separate report produced by the Anoka Conservation District.
Public Education – Web Video

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

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

Location: www.AnokaNaturalResources.com/LRRWMO

Results: As of January 27, 2012 the video production is in process. Appropriate video clips have been compiled. Many of these video clips were collected by ACD staff during the LRRWMO’s boat tour of the river in September 2011. A script for the video has been completed and sent to the LRRWMO Board for review. The video compilation will be complete before March 31, 2012.
LRRWMO Website

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

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

**Location:** www.AnokaNaturalResources.com/LRRWMO

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

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

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

LRRWMO Website Homepage

Welcome

The Lower Rum River Watershed Management Organization (LRRWMO) is a joint powers special purpose unit of government including the cities of Ramsey, Anoka, and portions of Coon Rapids and Andover. The WMO Board is made up of representatives from each of these cities. This organization seeks to protect and improve lakes, rivers, streams, groundwater, and other water resources across municipal boundaries. These goals are pursued through:
- water quality and flow monitoring
- investigative studies of problems
- coordinating improvement projects
- education campaigns
- permitting process
- others as the WMO’s discretion

All of the WMO’s activities are guided by their Watershed Management Plan.
Interactive Mapping Tool

To get started, do one of the following:
* Click on the house image next to “Locate Address” on the right-hand margin.
* Click on the binoculars image next to “Find Feature” on the right-hand margin.
* Click on the map and drag a box to zoom further in to a location.
* Click on the “Help” button on the left-hand margin.

Interactive Data Access Tool

Data Access

STEP ONE: Select the result you want to see (predefined charts do not necessarily show all parameters available for download):

- Create charts
- Create data download (.csv)

STEP TWO: Select from the following query options:

- Data types:
  - Hydrology
  - Chemistry
  - Biology
  - All

- Resource Type:
  - Lakes
  - Streams
  - Wetlands
  - All

- Monitoring site:
  - All Sites
  - AEC Rif Wetland at old Anoka Elec Corp/Canvasser

STEP THREE: Select a time frame (it may work best to select all years to see when data are available and avoid empty data sets)

Beginning month and year:
- Jan
- Dec

Ending month and year:
- 1986
- 2005

Reset
Member City Annual Reporting Template

Description: The LRRWMO Watershed Management Plan, adopted in January 2012, states:

“Member communities shall prepare and submit an annual status report to the LRRWMO by January 1 of each year reviewing the status of their local plans, the status of the implementation of their plans, and a review of the implementation of policies that are outlined in the LRRWMO plan... The LRRWMO will create a template for this report in 2011 with the assistance of the ACD.”

Purpose: To collect information the LRRWMO will need in their annual report to the State Board of Water and Soil Resources (BWSR).
To allow the WMO to defer some responsibilities to the communities, thereby allowing communities more control. BWSR allowed a smaller LRRWMO role on the condition that the LRRWMO have a reporting mechanism that allows them to track city accomplishments.

Location: Watershed wide.

Results: The member city annual reporting template was created by the ACD in January 2012, following adoption of the LRRWMO 3rd Generation Watershed Management Plan on January 19th. It is a three-page, checklist and fill-in-the-blank style report that is intended to be brief and quick to fill out. It would be appropriate for cities to complete this report at the end of 2012 (the first year under the new watershed plan), and annually thereafter.

Cover Page of the Member City Reporting Template
Financial Summary

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

Lower Rum River Watershed Financial Summary

Table to be added

Recommendations

- Consult the newly-completed LRRWMO 3rd Generation Watershed Management Plan for guidance on priorities and tasks.
- Repeat periodic tours of the Rum River by the LRRWMO Board. These boat tours are useful for identifying problems and the overall condition of the resource.
- Continue coordinating monitoring of the Rum River with the neighboring Upper Rum River WMO and the Metropolitan Council, who runs a monitoring site at the Anoka Dam.
- Continue monitoring Round Lake water quality at least every other year to determine if poorer water quality recently is within this lake’s natural variation, due to low water levels, or is indicative of new negative influences on the lake.
- Continue lake level monitoring, especially on Round Lake where residents have expressed concerns with levels. Other nearby lakes should be monitored for comparison and problems.
- Diagnose the cause of periodically low dissolved oxygen in Trott Brook. Water quality and hydrology monitoring is planned for 2012.
- Facilitate resident efforts to control aquatic plant growth on Rogers Lake as a means to improving low dissolved oxygen problems. Treatments should occur in early spring, occur on no more than 15% of the lake, be coordinated, and proceed under DNR permits. In early 2010 a meeting for residents was held, interest expressed, but coordination and work needed by residents did not materialize.
- Emphasize protection of Rum River water quality. The river’s water quality declines slightly in the LRRWMO and anticipated future development could cause further deterioration. Continued retrofitting existing stormwater treatment in built-up areas is recommended.
- Continue the existing cost share grant program for water quality improvement projects on private properties. This program should be actively promoted by identifying problems and contacting landowners.
- Encourage public works departments to implement measures to minimize road deicing salt applications. Monitoring and special investigations in the LRRWMO and elsewhere nearby have shown that road salts are a serious and widespread sources of stream degradation. A metro-wide chlorides TMDL study is underway that will provide additional guidance.
- Promote groundwater conservation. Water tables in the LRRWMO appear depressed due to regional over-pumping. Metropolitan Council models predict 3+ft drawdown of surface waters in certain areas by 2030, and 5+ft by 2050.
## 2011 Lower Rum River Water Management Organization (LRRWMO) Permit Summary

<table>
<thead>
<tr>
<th>Permit Name</th>
<th>Permit #</th>
<th>City</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anoka Street Project</td>
<td>2011-01</td>
<td>Anoka</td>
<td>Storm sewer improvements along Ninth Avenue from South Street to East Main Street. <strong>Project was approved.</strong></td>
</tr>
<tr>
<td>Andover 2011 Street Reconstruction and Hawk Ridge Park Trail</td>
<td>2011-02</td>
<td>Andover</td>
<td>Street reconstruction and storm sewer improvements on the Genthorn Ponds, Addition, Rolling Forest area, and East Brook Terrace area. Hawk Ridge Park Trail was previously approved in 2010. <strong>Project was approved.</strong></td>
</tr>
<tr>
<td>Armstrong Boulevard and Bunker Lake Boulevard Improvement</td>
<td>21011-03</td>
<td>Ramsey</td>
<td>Roadway Improvements—new thru land and additional turn lanes. Wetland fill of 0.84 acres in two wetland areas. <strong>Project was approved.</strong></td>
</tr>
<tr>
<td>Stoney River Addition</td>
<td>2011-04</td>
<td>Ramsey</td>
<td>6.6-acre site with a 53,200 square foot building proposed. Project was approved.</td>
</tr>
<tr>
<td>Chameleion Street Paving</td>
<td>2011-05</td>
<td>Ramsey</td>
<td>Pave existing gravel roadway. <strong>Project was approved.</strong></td>
</tr>
<tr>
<td>Mississippi West Regional Park</td>
<td>2011-06</td>
<td>Ramsey</td>
<td>4.7-acre site. Project proposes bituminous parking area and drive to boat launch and concrete boat launch. Shoreline improvements. MDNR permits required. <strong>Project was approved.</strong></td>
</tr>
<tr>
<td>Armstrong Boulevard and Highway 10 Interchange</td>
<td>2011-08</td>
<td>Ramsey</td>
<td>Permit submitted for preliminary wetland review. <strong>No permit issued.</strong></td>
</tr>
<tr>
<td>CSAH 116/7th to Round Lake Boulevard</td>
<td>2011-09</td>
<td>Anoka/Andover</td>
<td>Permit submitted for preliminary wetland review. <strong>No permit issued.</strong></td>
</tr>
<tr>
<td>North Pine Aggregate</td>
<td>2011-10</td>
<td>Andover</td>
<td>Plans and permit submitted for the stockpiling east of Hansen Boulevard. <strong>Permit issued at the LRRWMO February 16, 2012 meeting.</strong></td>
</tr>
</tbody>
</table>
**SNOWPLOWING REMINDERS...**

* MAILBOX CHECKLIST - The base of the box should be 45-47" above street level. The post should be placed 36" back from the curb or from the front of the box, which is even with the curb. The mailbox should be secured to the base and post and the post securely in the ground. The snowplow wing needs the 45" height to be able to clear the box and the 36" from the curb to clear the post. The City does not assume liability for a mailbox damaged during plowing operations, unless it is determined the plow made direct contact with a mailbox properly installed. If a mailbox is damaged from the weight of the snow / ice or the plow hitting the plastic newspaper tubes inside the 45" height requirement area, it is the owner's responsibility to make repairs, not the Public Works Division. **Decorative mailboxes are not** within the requirements and will not be replaced if damaged. The standard replacement is a 4 x 4 pole and standard metal box.

* TRAILS/PATHS are plowed during the regular scheduled working shift with the exception of trails within a 2-mile radius of a school. These trails are plowed as soon as possible during plowing operations.

* CUL-DE-SAC streets are plowed by smaller snow removal vehicles. You may notice the large plow truck will clear one path while turning around in the cul-de-sac, but the smaller plows will clear the street curb to curb. Plow operators try to evenly distribute snow throughout the cul-de-sac, but limited space makes it difficult. Remember to keep cul-de-sacs clear of all sports equipment such as hockey nets, basketball hoops, etc.

* NO PARKING on any City street after 2 inches or more snowfall until the streets have been plowed curb to curb. The City of Andover observes a parking ordinance during the winter months, which is **NO PARKING** on any City street between the hours of 1:00 a.m. to 6:00 a.m. from November 1st to April 15th. Cars parked or left unattended in a City street during plowing operations will be tagged and towed.

* DO NOT plow, shovel or blow snow onto a public street.

* LEAVES/grass clippings should not be blown or raked into City streets or along roadways. Anoka County has two compost sites available for residents use: Bunker Hills Compost Site in Coon Rapids and Rice Creek Chain of Lakes Compost Site in Lino Lakes. For more information regarding hours of operation, acceptable materials and costs call Anoka County Integrated Waste Management at (763) 323-5730 or go to www.anokacounty.us/yardwaste.

* GARBAGE CANS/recycle bins should be placed approximately 2 feet behind the curb IN the driveway. Plow operators cannot leave the vehicle to move objects in the road.

* SPRINKLER SYSTEMS placed in the curb right-of-way are not the responsibility of the City if damaged during snowplowing operations.

* CITY PARK parking lots that are NOT required to stay open during winter months will not be plowed.

* PROTECT YOUR KIDS! Remember it is dangerous for children to build snow forts along the street in the snow banks. Snowplow operators cannot see children playing in or on top of snow banks. Please remind kids how to stay safe when the snowplows are in operation!

---

**CLEAN WATER STARTS AT HOME**

**Tip #7: Winter Walkways Worth their Salt?**

As snow season draws near, consider this: sodium chloride (NaCl) is the most common form of salt used for de-icing roads and walkways. It is used so much that it has become a water pollutant. Here are ways to reduce chloride pollution and have safer walking areas.

Remove snow during a snowstorm instead of waiting until the end.

Think “anti-icing.” The goal is not to melt everything, but to break the bond between ice and pavement so it can be shoveled or plowed.

Treat before a storm to help prevent ice buildup so less de-icer is needed.

Alternatives: Sand - for traction only - safe and effective, but sweep up excess.

- Liquid magnesium chloride, calcium chloride, potassium chloride (all 3 work better than regular salt in colder temps), calcium magnesium acetate and potassium acetate.
- Do not apply if ice has already formed, in rainy, sleety, blowing conditions, or if snowfall is more than 1-inch per hour.
- Concrete may require specialized use or product. Salt, chlorides, and urea-based ("pet-friendly") options can cause pitting or spalling of concrete surface. Check product label for concrete use.

<table>
<thead>
<tr>
<th>Products change each year. Some past alternatives:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero Ice Melt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quik Joe's Ice Melt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ice Away</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydro-melt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Too costly? Try using sand as an alternative.

After storms; use as little de-icer as possible:

The closest salt substitute is potassium acetate, but is hard to find- ask for it to create consumer demand

Sand - safe for pets and children (sweep up any excess).

Remember, regular salt is not effective at temperatures below 15 degrees (F). For colder temps, try sand or pre-treat with liquid magnesium, calcium, or potassium chlorides.

Information provided by Coon Creek Watershed District (763) 755-0975 or www.cooncreekwd.org
CLEAN WATER STARTS AT HOME – TIP #6: FALL LAWN CARE

Healthy soil is key for healthy lawns, & healthy lawns can be good for water quality. Turf grass has a growth spurt in the fall to store up energy for winter; give it some help:

Mulch leaves and grass with your lawn mower to return nutrients to the soil and to help keep them off the streets (this is a code violation)...and out of our water!

Mow High – 3 inches tall
Why? It helps grass roots grow deeper and shades out weeds. Three inches tall is wider than a dollar bill by 1/2 inch!

Aerate your lawn mid-October
How? It’s best to use a core aerator, available for rent at many home & garden stores. With aeration, water and air can reach the grass roots more easily; better for your grass, and runoff is reduced, so better for our water.

Wait to fertilize until after aeration
If you use fertilizer, use it in September after aerating your lawn. Then it can be absorbed and saved by plants for spring. Make sure your lawn fertilizer has no phosphorus – look for a “0” in the middle of three numbers on the bag indicating nitrogen (N), phosphorus (P), & potassium (K) amounts. Fertilizing once per year should be enough. If you regularly mulch your clippings and leaves, you may not need to fertilize.

For more information contact Dawn at Coon Creek Watershed District (763) 755-0975 or email: info@cooncreekwd.org.

WEB Resources:
Aeration - www.gardening.cornell.edu/homegardening/sence5e77.html
See if your yard is a Clean Water yard: www.gardening.cornell.edu/homegardening/scenec189.html
Wondering if you need to use fertilizer? To test your soil, try UM Extension: http://soiltest.cfans.umn.edu/test.htm

INTERESTED IN OPEN SPACE PRESERVATION?

The City is interested in hearing from you if you are interested in preserving your property as open space. The Open Space Advisory Commission is a group of seven residents appointed by the City Council to advise them on open space preservation. This group meets on the second Wednesday of each month at 7:00 p.m. in the City Hall Council Chambers. Their meetings are open to the public and resident participation is encouraged. Or send an e-mail with your thoughts, ideas or suggestions to Courtney Bednarz at c.bednarz@andovermn.gov.

OPEN SPACE UPDATE

The Open Space Advisory Commission continues to work with property owners that have expressed interest in permanently preserving land as open space. Sites are evaluated based on a variety of criteria, including, natural features, wildlife habitat, and the potential for public access. Several new sites are currently being evaluated by the Commission.

The newest open space property is located east of the intersection of 161st Avenue NW and Crane Street NW. The twenty acre site was named ‘North Woods Preserve’ by the City Council at their August 4th meeting. Both open space sites will provide excellent opportunities to view the fall colors as the leaves begin to change.

ACCAP CHORES & MORE

Over 60? ACCAP Chores & More

YOUR ONE STOP SHOPPING FOR:

MINOR HOME REPAIRS
HOUSEKEEPING
SEASONAL CHORES
Snow removal
Lawn mowing
Spring and fall clean-up.

ATTENTION:
Start Calling: Sept 1 to get on the Fall clean up list and the Winter Snow Removal list.
Call Ann or Judy at (763) 767-6521

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

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

ACCAP Chores & More does not discriminate based upon a persons, race, color, national origin, sexual preference, or religious affiliation.
These are the times that try men's souls.

Thomas Paine wrote that during the Revolution. The statement is relative to today. We are in the midst of an economic crisis that exists at both the state and national levels. We have a multi-trillion dollar deficit in our national budget and a 5 billion dollar deficit in our state budget.

[A billion hours ago man had not walked the earth. A billion dollar bills, stacked in a pile, would reach from Andover to Mora, sixty miles.] Think about it.

I bring this up because our legislature is in the process of developing a budget for the next biennium and it has to deal with that deficit. There will be considerable cost cutting and that means that there will be little, if any money, for the cities. Aid for cities and local governments that used to be part of the state budget will probably be reduced or, in some cases, eliminated. Cities, such as Andover, will have to make the necessary adjustments in our spending.

CLEAN WATER STARTS AT HOME

TIP #2: WETLANDS – AVOID OR MINIMIZE YOUR IMPACT

Planning some landscaping, dumping, grading, or other changes in low grassy or soggy areas on your property? Contact the Coon Creek Watershed District at (763) 755-0975 or the Anoka Conservation District at (763) 434-2030, x14 to help determine if wetlands are on your property.

Some activities require a permit if they affect wetlands or other water bodies. So, you can be cited if found in violation of the law.

Why? There is potential for negative impact; maybe the wetland cannot hold as much water or filter stormwater runoff or soak in runoff because the ground has been compacted.

How do you know if it is a wetland? It can be difficult. Many wetlands are not very wet. In fact, they may only be soggy a couple weeks of the growing season and still be a wetland under the law.

Legal-Ease
Permits help us keep track of affected areas and, therefore, impacts on the balance of water storage and filtering capacity, among other things.

A permit is needed to excavate, drain, or fill any legal wetland. Why?

The 1991 MN Wetland Conservation Act (WCA) calls for a "no net loss" of wetlands so wetland draining, filling, & excavation activities need to be avoided or minimized and then offset by either wetland restoration or replacement (called "mitigation").

Recommendations
* Contact Coon Creek Watershed District: (763) 755-0975 with any questions
* Remove "fill"- sod, brush, rock piles, trash, wood chips, grass clippings

Information provided by Coon Creek Watershed District:(763) 755-0975 or email: info@cooncreekwd.org

CITY OFFICES WILL BE CLOSED MAY 30th IN OBSERVANCE OF MEMORIAL DAY.
TRAIL SAFETY

With spring right around the corner, there are probably a number of residents that are having the itch and want get out to walk, bike or roller blade. When you are out and about there are things that you need to take into account in regard to safety on the trail system. Some of the rules in regard to the use of the trails are to obey stop signs and be courteous to others on the trail such as moving over and staying to the right when others are passing or yield to other users when entering and crossing the trail. The City would appreciate if parents can spend time also educating their children so they can learn to obey the stop signs and rules of the road when they are on their own going to school or on their way to visit friends.

If you are interested in learning more about the trail system, feel free to stop by City Hall or view the parks/trails map on the City’s website at www.andonvermn.gov.

2011 SEASONAL ROAD RESTRICTIONS

Each spring Andover places road restrictions (weight limits) on City streets. Limiting vehicle weight minimizes damage to the streets when the frost comes out of the ground. This will extend the life of the street and reduce the need for early (and costly) reconstruction.

Road restrictions are typically put into effect in early March (depending on the weather) and kept in place through the end of April. Check with City Hall to verify when the restrictions will be initiated. Residential streets are restricted to 5-ton per axle weight limit with some residential streets restricted to 4-ton per axle limit.

Road restrictions may prevent you from receiving or scheduling a large, heavy delivery to your home in March & April.

To determine what road restrictions are for your street, please visit the City’s website at www.ci.andonver.mn.us and view the Seasonal Road Restrictions Map. The link is located on the right side of the home page.

COMMUNITY GROUPS

Andover Women of Today:
(763) 516-6283

Andover/Ramsey Moms Club:
www.ourmomsclub.org

Andover Seniors:
(763) 226-6978

TOPS Club:
(763) 757-5822

Andover High School Football Boosters:
(763) 506-8555

Andover Lions:
(763) 286-9782 or (763) 434-9403 for membership interest/questions

DFL Meetings:
(763) 434-1394

Republican Meetings:
(763) 712-5378

Moms In Touch:
Moms praying for their children & local schools.
(763) 757-0111
www.MomsinTouch.org

Lamplighters 4-H Club:
Marsha Rouch
(763) 862-8969

ACCAP CHORES & MORE

Over 60 or an adult with a disability??
ACCAP Chores & More

YOUR ONE STOP SHOPPING FOR:
MINOR HOME REPAIRS
HOUSEKEEPING
SEASONAL CHORES
Snow removal
Lawn mowing
Spring and fall clean-up.

ATTENTION:
Start Calling: April 1st to get on the Spring clean up list and the Summer mowing list. CALL ANN at (763) 767-6521

FUNDING IS PROVIDED BY THE OLDER AMERICAN ACT GRANT THROUGH THE MINNESOTA BOARD ON AGING AND THE METRO AREA AGENCY ON AGING. CHORES & MORE IS A PROGRAM OF THE ANOKA COUNTY COMMUNITY ACTION PROGRAM WITH FUNDING FROM THE CITIES OF ANOKA AND COON RAPIDS.

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

POTHOLE PATCHING

This winter has been unusually hard on streets due to moisture and temperature changes. The Street Maintenance Department started repairing potholes in January with cold patch as needed. Pothole repairs with hot patch will begin as soon as possible, as early as February if asphalt plants open early and will continue through to fall as needed. The Street Department hopes to purchase the oil for spray patching as soon as it becomes available. If you are aware of any major potholes on a City street, feel free to call (763) 755-5100 to report the location with the nearest address. We appreciate being notified so the pothole can be repaired quickly.

ADOPT-A-CITY STREET

The City has an “Adopt-A-City Street” program, which is available to residents who would like to volunteer to clean up a two (2) mile stretch of road for a two (2) year commitment. A sign will be erected on the section of road being cleaned to recognize your group name. If interested in adopting a City street for spring and fall clean up, please contact Barb Wells Public Works Administrative Assistant at (763) 767-5181 or bwells@andonvermn.gov

STREET SWEEPING

Street Sweeping operations will begin mid-April or as soon as weather permits. If a boulevard has salt/sand on it, please rake ONLY the salt/sand material to the edge of the blacktop or curb for pickup by the street sweepers. The boulevard is the distance from the edge of blacktop or curb to the property line (generally 13’ to 15’). PLEASE - NO YARD WASTE MATERIAL SHOULD BE RAKED INTO CITY STREETS! If you need to dispose of leaves, take them to NRG Processing Solutions (compost site), 13285 Hanson Blvd, Coon Rapids, (763) 767-7964 or call your garbage hauler to see if they provide this service. Please watch for street sweepers in your area, and move any vehicles or obstacles that may block sweeping operations. Sweeper operators would also like to remind residents not to place garbage containers out into the street. Operators are able to do a much cleaner job if streets are kept clear of all obstacles. Street sweeping operations will also follow completed seal coat project areas on City streets.
The Lower Rum River Watershed Management Organization (LRRWMO) recently received approval from the Minnesota Board of Water and Soil Resources (BWSR) of the 3rd generation plan in accordance with Minnesota Rules. The approval of the plan is to provide guidance to the member cities of Andover, Anoka, Coon Rapids and Ramsey to ensure the surface water resources (lakes, streams, rivers, wetlands, and protected storm water) within the boundaries of the organization in a consistent, cost effective and environmentally appropriate manner. With more emphasis on clean water nationwide by the federal and state agencies, the watersheds districts and water management organizations metro wide will be more involved in developing strategies to meet the goals of the watersheds by cooperating and educating residents, City Councils/City Staff, developers and other review agencies. For further information about the LRRWMO, feel free to contact your City Engineer or Board Representative by visiting the website at http://www.anokanaturalresources.com/lrrwmo/index.htm

If you are interested in attending the LRRWMO meeting, the meetings are held the third Thursday of each month at 8:30 am at Anoka City Hall.
Homeowner Education for Septic Systems

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

This two-hour program will be held Tuesday, March 1, 2011 from 7:00 – 9:00 pm at the Bunker Hills Activities Center, 550 Bunker Lake Blvd NW, Andover, two miles west of Highway 65 on Bunker Lake Boulevard. The cost to attend is $10. You will receive the University of Minnesota Extension Septic System Owner’s Guide at the class.

Pre-registration is required. The flyer and registration forms are available online at www.extension.umn.edu/county/anoka under Publications in Anoka County, or you can call the University of Minnesota Extension, Anoka County at 763-755-1280 to request the flyer and registration form.

Presentation of this program is partially covered by an Anoka County Ag Preserves Grant and is presented by Valerie Prax, Retired Extension Educator.

Anoka County Historical Society on Facebook

The Anoka County Historical Society is now on Facebook. Patrons can access information about programs, events, and exhibits from the comfort of their home. In addition, ACHS will post a trivia question about Anoka County’s history several times a week. Facebook “friends” will want to access frequently to check their answers!

“The use of this technology increases our availability to our patrons in the community,” said Todd Mahon, the executive director of the Anoka County Historical Society. “Social media is all about connecting with people of similar interests. It’s a great way to stay informed about current programming and events occurring at the History Center.”

Facebook does not replace the experience of visiting the History Center, and the public is invited to frequently take advantage of this resource for great local history and information. ACHS houses a historical and genealogical reference library, and a museum, which is free to the public on the first Tuesday of each month.

Patrons are reminded that the History Center’s hours are Tuesdays, from 10:00 am to 8:00 pm; Wednesdays, Thursdays, and Fridays from 10:00 am to 5:00 pm and Saturdays from 10:00 am to 4:00 pm.

If you have any questions, please feel free to contact Maria King, Volunteer Coordinator, at 763-421-0600 or email at maria@ac-hs.org.

Anoka Ramsey Athletic Association
2011 Spring Sports Registrations

Registrations for Baseball, Softball, Soccer & Tennis are being accepted online starting January 1, 2011.

Uniform fitting and Onsite registration for all sports including Lacrosse will be held at the following locations and times.

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramsey Municipal Center (AR Room)</td>
<td>January 31, 2011</td>
<td>6:00 pm – 9:00 pm</td>
</tr>
<tr>
<td>Ramsey Central Park</td>
<td>February 19, 2011</td>
<td>9:00 am – 1:00 pm</td>
</tr>
</tbody>
</table>

Check us out on the web: [www.arsports.org](http://www.arsports.org)
or call the Hotline at 763-422-9555 for more information.
You are invited to attend the City of Ramsey’s 3rd Annual Business Expo, sponsored by the Ramsey Economic Development Authority (EDA). The Expo highlights retail, service, restaurant, and other types of local businesses, and offers an opportunity for residents and visitors to learn more about the products and services offered by participating businesses. Admission to this event is FREE to the general public.

The Ramsey EDA is looking for businesses interested in participating in the Business Expo. The fee for a 10’ x 8’ space is $30 for Ramsey businesses and $45 for non-Ramsey businesses. A 3’ x 6’ table and two chairs will be provided. Exhibitors are responsible for providing their own booth or display items.

Don’t miss these great events! Admission to both of these events is FREE!

Updated details and registration forms for both events are available on our website at www.cityoframsey.com, click on the “Community Events” tab and then scroll down to the event you are interested in. For more information regarding the Business Expo, please contact Aaron Backman at 763-433-9829 or abackman@ci.ramsey.mn.us. For information regarding the Environmental Expo, please contact Chris Anderson at 763-433-9905 or canderson@ci.ramsey.mn.us.
Mayor Bob Ramsey’s Monthly Town Hall Meetings!

You are invited to stop in for coffee and a cookie and talk with Mayor Bob Ramsey every third Thursday of the month at 7:00 pm. The monthly meetings will be held in the Alexander Ramsey Room at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey MN 55303. These will be informal meetings where residents can visit with the Mayor about city issues or any topic they would like! The dates for upcoming Town Hall Meetings are as follows: March 17, April 21, May 19, and June 16. Questions? Please contact Heidi Nelson at 763-433-9817 or hnelson@ci.ramsey.mn.us.

Well Water Wise Week May 2 through May 6, 2011

The Anoka County Community Health and Environmental Services Department will be accepting well water samples Monday through Thursday, 8:00 am to 4:15 pm, and until 12:00 noon on Friday during Well Water Wise Week.

Submit Water Sample to: Community Health & Environmental Services 360 Anoka County Government Center 2100 Third Avenue Anoka, MN 55303

You can pick up your test kit at the Ramsey Municipal Center located at 7550 Sunwood Drive NW in Ramsey between the hours of 8:00 am and 4:30 pm.

The laboratory fee is $30.00. At any time during the year you may still pick up your test kit at the Ramsey Municipal Center. Water samples may be submitted to Community Health & Environmental Services at Anoka County on Mondays from 8:00 am – 4:15 pm and Tuesdays from 8:00 am – 12 noon.

If you have any questions, you may contact Mary Jo Warner, Public Works Secretary, at 763-433-9820 or Anoka County Community Health and Environmental Services Department at 763-422-7063. For more information on the importance of well water testing, go to the City’s website at www.cityoframsey.com under Departments/Public Works/Utility and click on the Well Water Testing Link.
ATTENTION all parents of second and third graders! Getting a little tired of the tricks that Mother Nature is playing this winter? It’s time to start thinking about summer fun and making plans for your kids! The Ramsey Kid’s Safety Camp is a great place to start the summer out safely.

The 10th Annual Ramsey Kids Safety Camp will be on June 21-22, 2011. Camp is limited to 180 children and will be filled on a first come basis. Priority registration is given to Ramsey residents and first time attendees. A registration fee of $30 includes activities, supplies, snacks and lunches, bike helmet, t-shirt, and awards ceremony. Limited scholarships are available. Registration materials will be available April 1st at http://www.cityoframsey.com/commevents.aspx. For more information, contact Chandra Kreyer at 763-433-9891 or ckreyer@ci.ramsey.mn.us.

Economic Development Authority

The Economic Development Authority (EDA) works to promote the growth and expansion of commercial, retail and industrial development in the city of Ramsey. The EDA works with both new and existing businesses. For the last few years, the EDA has sponsored the Business Expo event held each spring. One project the EDA worked on was the Acapulco Restaurant located next to Coborn’s Superstore.

The EDA meets the second Tuesday of each month at 7:30 am at the Ramsey Municipal Center, 7550 Sunwood Drive NW.

For more information, please contact Aaron Backman at 763-433-9829 or abackman@ci.ramsey.mn.us.

Emerald Ash Borer (EAB) Workshop

EAB is an invasive pest that kills ash trees. It was found in St. Paul in 2009 and Minneapolis in 2010. It now threatens to move into Anoka County. Would you like to learn more about EAB, things that can be done to save your ash trees, and tips for developing a plan for your own property? The cities of Ramsey and Andover are jointly offering a free workshop on EAB on Wednesday, April 6, at 6:30 p.m. If you’d like to attend, please register by going to the city’s website: www.cityoframsey.com and click on “City Departments”, “Environmental Services”, and the “EAB workshop” links.

For more information, please contact Chris Anderson at 763-433-9905 or canderson@ci.ramsey.mn.us.
As spring arrives, many are looking at reconditioning their driveways by applying a sealcoat or sealant. Sealcoat is a black liquid that is sprayed or painted on asphalt pavements in an effort to protect or beautify the asphalt. Many sealcoat products are coal-tar or asphalt-based.

Coal-tar is a byproduct of coal processing which contains high levels of toxic chemicals called polycyclic aromatic hydrocarbons (PAHs). Some PAHs are even classified as probable or possible carcinogens to humans. Studies show that PAHs can be released as the sealcoat flakes off and is then flushed by stormwater runoff into nearby surface waters where they can accumulate in sediments at levels that are potentially harmful to fish and other aquatic organisms. This is also a concern for those responsible for managing and disposing of stormwater sediments as it is very costly to dispose of PAH contaminated soil. In fact, in 2009, the Legislature enacted a bill that restricts state agencies from purs-
Attention:
City Water Customers
Odd/Even Day Sprinkling Ban

To reduce peak water usage in areas served by the municipal water system, the city of Ramsey has implemented an odd/even day sprinkling ban, pursuant to City Code, Section 58-118. The sprinkling ban will be in effect from May 31 until September 6.

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

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

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

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

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

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

Help Protect Ramsey’s Drinking Water Supply:
Private Well Sealing

Do you live in the city of Ramsey and have an unused private well on your property? Do you know someone who does? If you do, you can help the city of Ramsey protect its 10,300 residents who rely on the city’s water supply.

The city of Ramsey draws its drinking water from eight municipal wells. To better protect its water drinking source, the city completed a Wellhead Protection Plan in August 2009. While creating this plan, the city identified that unused and improperly sealed private wells provide a direct pathway for contamination to groundwater, and the city’s water supply. When an old well casing deteriorates, non-point sources like surface runoff or point source contamination, such as leaking sewer lines or failing septic drain fields can enter the well and may impact the city’s drinking water source. The best way you can help to protect city of Ramsey’s drinking water is to properly seal your unused well.

Minnesota law requires that a licensed well, or well sealing contractor, seal unused wells. Please ask for your contractor’s license information before signing a contract. The Minnesota Department of Health Well Management website has more information for well owners who would like to properly seal their wells, including a directory of licensed well contractors. There are many other useful links on the page including a “Well Owners Handbook”. This information can be found at http://www.health.state.mn.us/divs/eh/wells/index.html.

If you have any questions or comments, or would like additional information about source water/wellhead protection planning, please contact City Engineer Tim Himmer at 763-433-9893 or thimmer@ci.ramsey.mn.us.
Grilling Safety

Fire in the grill, under hot dogs and burgers, is a welcome sight at the family cookout. But fire anywhere else can make your summer kick-off barbecue memorable for all the wrong reasons. Here are tips from the Ramsey Fire Department for safeguarding your family.

Charcoal Grill Safety Tips

Each year, there are about 20 deaths from carbon monoxide (CO) poisoning and more than 300 emergency room treated injuries from CO poisoning resulting from charcoal grills. Charcoal produces CO when burned. CO is a colorless, odorless gas that can accumulate to toxic levels in closed environments.

To reduce these CO poisonings, follow these safety tips:

- Never burn charcoal inside of homes, vehicles, tents, or campers.
- Charcoal should never be used indoors, even if ventilation is provided.
- Since charcoal produces CO until the charcoal is completely extinguished, do not store the grill indoors with freshly used coals.

Gas Grill Safety Tips

Each year more than 500 fires occur when people use gas grills and about 20 people are injured as a result of gas grill fires and explosions. Many of these fires and explosions occur when consumers first use a grill that has been left idle for a period of time or use a grill right after refilling and reattaching the gas container.

To reduce these risks, people should:

- Check the tubes that lead into the burner for any blockage from insects, spiders, or food grease. Use a pipe cleaner or wire to clear blockage and push it through to the main part of the burner.
- Check grill hoses for cracking, brittleness, holes, and leaks. Make sure there are no sharp bends in the hose or tubing.
- Move gas hoses as far away as possible from hot surfaces and dripping hot grease.
- If you detect a gas leak, immediately turn off the gas at the tank and don’t attempt to light the grill until the leak is fixed.
- Never use a grill indoors. Use the grill at least 10 feet away from any building. Do not use the grill in a garage, carport, porch, or under a surface that can catch fire.
- When lighting the grill, keep the top open. If the grill does not light in first several attempts, wait 5 minutes to allow gas to dissipate.
- Always keep containers upright. Never store a spare gas container under or near the grill. Never store a full container indoors.
- To avoid incidents while transporting LP gas containers, people should transport the container in a secure, upright position. Never keep a filled container in a hot car or car trunk. Heat will cause the gas pressure to increase, causing the relief valve to open and allowing gas to escape.

Keeping a home safe is a group responsibility. Please discuss these tips with your family members or roommates. Knowledge is the best safety tool. If you have questions, please feel free to call Matt Kohner at 763-433-9832 or e-mail mkohner@ci.ramsey.mn.us.

Oak Wilt Reminder

How are your oak trees looking? Do you see any leaves wilting? If so, is it at the top of the tree and moving downward? This may be oak wilt, which is a deadly fungal disease that attacks all types of oaks, but is most devastating to red and pin oaks (the oaks that have pointed tips on their leaves).

If you suspect you have oak wilt, or if you have any concerns regarding oak wilt or any other tree species, you can contact Associate Planner/Environmental Coordinator Chris Anderson at 763-433-9905 or email canderson@ci.ramsey.mn.us, for more information and/or for a site visit.

Remember, it’s very important to avoid pruning oaks from April through July. The best time to trim your oaks is from October through March, when the trees are dormant.
City of Ramsey to Conduct Public Opinion Survey of Residents
June Survey to Focus on Options for Long-Term Road Maintenance, Reconstruction Program

In June, the city of Ramsey will conduct a telephone survey to measure residents’ understanding and support of potential alternatives for a long-term road maintenance and reconstruction program. The program will be needed to complete repairs of more than half of the city’s roads in the next two decades and beyond.

About 45 percent of Ramsey’s 178 miles of city roads were constructed between 1976 and 1985. With routine maintenance, the average expected life of these roads is 40 years. That means that between 2016 and 2025, about $90 million or more in road reconstruction will be necessary to repair or replace city streets. The majority of the cost of this work will be the responsibility of local taxpayers. Currently, the city’s street reconstruction policy funds reconstruction projects by assessing adjacent property owners.

“Good roads are essential for safe travel and the economic strength of Ramsey. Unfortunately, existing city roads will begin reaching the end of their useful life and we need to begin planning for their maintenance and replacement,” says Bob Ramsey, Mayor of Ramsey. “We believe it is important for Ramsey residents to be involved in developing the city’s long-term plans and this survey is one of the first opportunities for the public to provide input. We hope residents will participate if they are called.”

The public opinion survey will be conducted by telephone in June. The approximately 30-question survey of 300 Ramsey residents will be conducted by Decision Resources, Ltd., a leading polling firm in Minneapolis. The City of Ramsey will use survey results as part of a public process to develop a long-term road maintenance and reconstruction policy and funding plan.

For more information or to ask questions, contact Brian Olson, Public Works Director, at bolson@ci.ramsey.mn.us or by calling 763-433-9825.

Attention: City Water Customers
Odd/Even Day Sprinkling Ban

To reduce peak water usage in areas served by the municipal water system, the city of Ramsey has implemented an odd/even day sprinkling ban, pursuant to City Code, Section 58-118. The sprinkling ban will be in effect from May 26 until September 8.

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

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

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

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

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

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

The consumer confidence report is available online at www.cityoframsey.com on the Public Works/Utilities page.
The City of Ramsey, in conjunction with grant funding from Anoka County State Health Improvement Program (SHIP), has installed a self-service canoe and kayak kiosk at Sunfish Lake, located at 6330 Sunwood Drive.

The kiosk holds two single-person sit-in kayaks and two three-person canoes. Paddles and life-jackets are also provided. There is no charge for use, but a ‘swipe card’ authorizing access to the watercraft is needed. You may obtain your swipe card (which is yours to keep) by visiting Ramsey City Hall. You must read/sign the terms of use agreement and liability waiver and provide proof of identification. For more information, please refer to the city’s website at http://www.ci.ramsey.mn.us/services/canoes.aspx.

**Cook Book for Sale!**

The Youth Ramsey Police Explorers are selling cookbooks for their POST 3819.

This cookbook has 150 recipes and will be for sale at the Ramsey Happy Days festival on Saturday, September 17 at the Public Safety Booth. The cost is $10.00 each with all profits going directly to the Youth Ramsey Police Explorers.

If you can’t make it to Happy Days and want a cookbook, or if you have any questions, please contact Kristin Camacho at the Ramsey Police Department at 763-427-6812 or Kcamacho@ci.ramsey.mn.us.
City of Ramsey Offers Private Well Water Testing

The city of Ramsey and Anoka County Community Health and Environmental Services are partnering to provide low cost private well water testing in an effort to assist residents in protecting their drinking water. Although color and odor are two of the most common and easily recognizable issues associated with well water, it’s what you can’t see or smell that may pose the greatest health risk. One way to assure quality drinking water is to have it tested. Annual testing is recommended.

A Minnesota Department of Health (MDH) certified analytical laboratory will analyze the well water sample for total coliform bacteria and nitrate-nitrogen, two common contaminants found in private wells. Private well water is not treated with chlorine to inhibit the presence of bacteria. Testing for total coliform can give a good indication if illness causing bacteria are present in the well water. Nitrate-nitrogen is common in private wells in areas where septic systems are used or where land application of fertilizers can impact groundwater. It is a tasteless and odorless contaminant that migrates within the groundwater. For more information, you are urged to visit the Minnesota Department of Health well management website (http://www.health.state.mn.us/divs/eh/wells/waterquality/). Here you can find additional information about how common well contaminants can adversely affect your health.

Testing kits may be picked up at the city of Ramsey Engineering Department. For more information, contact Mary Jo Warner at 763-433-9820 or mwarner@ci.ramsey.mn.us. Samples are accepted and analyzed by Anoka County Environmental Services, Mondays 8:00 am to 4:15 pm and Tuesdays 8:00 am to 12:00 noon, for a nominal fee of $30. If you would like your water analyzed for other components, please call the Anoka County Environmental Services unit at 763-422-6985.

When You Flush . . . Ramsey Public Works Department Needs Your Help!

During the past few weeks, Ramsey city staff has responded to several lift station service calls, mostly due to pump failures. Lift stations are a very critical function to the city’s sewer system. Essentially, most of Ramsey’s sewer lines are gravity that flow to a lift station, and from there, sewage is pumped to a higher elevation to continue on to treatment.

This is where YOU can help!

Staff has been finding numerous items plugging the pumps: baby wipes, baby diapers, rags, articles of clothing, sanitary napkins, grease, etc. All these items cause problems with pumps, and cost the city in service calls, additional staff expenditures, and unnecessary wear and tear on the pumps in the station.

Please do not flush these items down your toilets!

With everyone’s help, we can reduce the problems at our lift stations and better manage utility rates. Thank you for your cooperation.

If you have any questions or concerns, please contact John Nelson at 763-433-9861, 8:00 am – 4:00 pm (Monday – Friday) or email jnelson@ci.ramsey.mn.us.

No Parking on Public Streets

Parking is not allowed on any public street between the hours of 2:00 – 6:00 am year round. Vehicles in violation will be cited and may be towed.
Late Fall is an Ideal Time to Identify Buckthorn on your Property

Buckthorn is an invasive woody plant that has made its way into Ramsey. It is a very aggressive plant that can tolerate shade, full sun, drought, and poor soil conditions. Buckthorn will out-compete native vegetation for nutrients, light, and water. These traits, along with the fact that its seeds can be viable for up to five (5) years, negatively impact native ecosystems by degrading habitat for native wildlife, creating an impenetrable layer of vegetation, and reducing species and diversity of plants and songbirds in forests. This is why Buckthorn is considered an invasive species and when found, should be removed.

Buckthorn can be identified by several characteristics, including black berries that birds love, a thorn at the tip of branches (between two buds), or green foliage well into the fall/early winter. The easiest way to identify buckthorn is simply to wait until November when most native trees and shrubs have lost their leaves. If you see shrubbery and/or small trees that still have green foliage, chances are it is Buckthorn. This would be an ideal time to mark those plants with either ribbon or paint so that next spring/summer, it’s still easy to identify those buckthorn plants for removal.

There are several control options available including pulling by hand (smaller plants up to roughly 3/8 of an inch), using a hand tool, such as a “Weed Wrench”, to pull larger plants (up to about 2 inches in diameter), or cutting and chemically treating the stumps of Buckthorn greater than 2 inches in diameter (always follow product instructions for mixing and applying any type of herbicide). It is likely to take multiple attempts to control buckthorn due to its aggressive and viability of seeds.

Two “Weed Wrenches” are available for Ramsey residents to ‘check out’ to assist with managing and eradicating Buckthorn. The tool can be checked out for a two (2) week period and requires a $25 deposit to ensure that it is returned clean and in working condition. Further details are available on the city’s website or by contacting the Associate Planner/Environmental Coordinator Chris Anderson at 763-433-9905 or email canderson@ci.ramsey.mn.us. Please help us combat this invasive plant and don’t forget to replant areas with native trees/shrubs!

Snowmobile and ATV Use

The city’s recreational vehicle ordinance provides reasonable regulations for the operation of snowmobiles, all-terrain vehicles, off-highway motorcycles and other recreational vehicles on public and private property within the city of Ramsey. The ordinance was recently updated to provide for the operation of recreational vehicles on designated trails within the city.

Within the city of Ramsey, a non-use area, located south of a straight line running from east to west at the 16700 block, starting at the Rum River on the east and running to the city of Elk River border on the west, restricts the use of recreational vehicles. Within the non-use area, recreational vehicles may be only operated on private property if the property is greater than two and one-half (2 ½) acres in size. Recreational vehicles used for maintenance or plowing are allowed to be operated on private property, regardless of the lot size.

The operation of recreational vehicles off of private property within the non-use area is restricted to marked, designated trails. The proposed trail system will run along the outside slope of designated county and state highways and the public right of way on designated city streets. Loading and unloading of snowmobiles and ATV’s is available in the parking lots of Central and Elmcrest Parks to access the marked trails and designated use areas. Between November 1 and March 31, there must be a minimum of six (6) inches of snow cover on the ground for recreational vehicle use.

Recreational vehicles may NOT be operated in the city between the hours of 10:00 p.m. and 8:00 a.m. Sunday through Friday, and between the hours of 1:00 a.m. and 8:00 a.m. Saturday and Sunday.

A map of the designated use area and proposed trail system, as well as the Recreational Vehicle Ordinance, is available on our website at www.cityoframsey.com or by contacting the Ramsey Police Department at 763-427-6812.
Appendix E

The 2011 Audit will be conducted in June and, once completed, mailed under separate cover.