# **Excerpt from the 2021 Water Almanac**

Chapter 4: Lower Rum River Watershed



Prepared by the Anoka Conservation District

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### **Recommendations**

- >Install projects identified the new LRWRMO Watershed Management Plan. New non-competitive State Watershed Based Funding may be used for these projects, as well as competitive grants.
- Continue to install projects identified in the stormwater retrofit studies for the Cities of Anoka and Ramsey, and other upcoming studies. Projects have been identified and ranked that would improve stormwater runoff before it is discharged to the Rum or Mississippi River.
- >Install additional stormwater treatment, when appropriate, during street projects.
- >Approve the Rum River Watershed Comprehensive Watershed Management Plan, developed through the One Watershed, One Plan (1W1P) process. Join the joint powers agreement to implement the plan. The LRRWMO is the receiving entity at the bottom of the watershed, so it is especially important to encourage upstream projects. Project types identified in the LRRWMO include stormwater retrofits, riverbank stabilization, public outreach, and others.
- Maintain or reduce Rum River phosphorus. Phosphorus levels are close to State water quality standards. It may be appropriate to review development and stormwater discharge ordinances to ensure phosphorus does not increase in coming years.
- Implement groundwater conservation measures throughout the watershed and promote them metrowide. Depletion of shallow groundwater is a concern region-wide.
- **Continue surveillance water monitoring** at a frequency sufficient to detect changes and trends.
- Continue chloride sampling at all sites on a rotating basis. Chloride can have such a profound impact on aquatic life and drinking water, continuing to periodically include it in the monitoring regime is prudent.

Map: 2021 Water Monitoring Sites - Lower Rum River Watershed



### Lake Level Monitoring

Partners:	LRRWMO, ACD, MNDNR, Volunteers
Description:	Weekly water level monitoring in lakes using gages placed in each lake. The past five and twenty five years of data for each lake are illustrated below, and all historical 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:	Round, Rogers, Itasca, and Sunfish/Grass Lakes
Results:	Lake levels were measured by volunteers throughout the 2021 open water season. Lake gages were installed by Anoka Conservation District and surveyed by the MN DNR. 2021 was the 11th driest year on record and Anoka County was in a state of drought beginning in June, with most of the growing season spent in a severe drought condition. All lakes recorded lower water levels on average than in 2020.
	Water levels on all lakes were well below levels recorded over the last five years. Round lake had its lowest reading since 2013, but was still above the low water levels observed during 2000-2010. Rogers Lake and Lake Itasca both recorded their lowest water level since 2010. However, Lake Itasca's last reading of the year was July 16, 2021; the volunteer did not report that the gage was out of the water after that time and lower water levels would have been recorded.

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

#### Round Lake Levels – last 5 years

Jan-19 -

Jan-20 -

868.0

867.0

866.0

865.0

864.0

Jan-17

Jan-18 -

Elevation (ft)

Round Lake

OHW=866.40

Jan-21



#### Round Lake Levels - last 25 years



Itasca Lake Levels - last 5 years



#### Sunfish/Grass Levels - last 5 years



#### **Rogers Lake Levels – last 25 years**



Lake Itasca Levels – last 25 years



#### Sunfish/Grass Levels - last 25 years



Lake	Year	Average	Min	Max
Round	2017	866.42	866.18	866.80
	2018	865.80	865.50	866.27
	2019	866.45	866.19	866.86
	2020	866.61	866.19	867.03
	2021	865.41	864.66	866.10

Lake	Year	Average	Min	Max
Rogers	2017	883.81	883.54	884.04
	2018	883.74	883.44	884.02
	2019	884.08	883.74	884.44
	2020	883.76	883.39	884.05
	2021	882.88	882.26	883.31
	1	1		1
Lake	Year	Average	Min	Max

Lake	Year	Average	Min	Max
Itasca	2017	867.47	866.88	868.95
	2018	866.45	866.09	866.84
	2019	867.41	866.99	868.08
	2020	867.72	866.83	868.51
	2021	865.76	865.25	866.13

Lake	Year	Average	Min	Max
Sunfish/	2017	860.79	860.45	861.13
Grass	2018	859.81	860.14	860.14
	2019	860.94	860.42	861.58
	2020	860.80	860.32	861.34
	2021	859.42	858.92	860.06

# Lake Water Quality

Partners:	ACD and LRRWMO
Description:	Lake water quality monitoring was conducted ten times between May through September, approximately every two weeks. The monitoring parameters includes total phosphorus, chlorophyll-a, Secchi transparency, dissolved oxygen, turbidity, temperature, specific conductance, pH, and salinity.
Location:	Sunfish/Grass Lake
Results:	Detailed data for each lake are provided on the following pages, including a summary of historical conditions and trend analysis. Previous years' data are available from the Minnesota Pollution Control Agency's (MPCA) electronic data access (EDA) website or from ACD. Refer to Chapter 1 for additional information on lake dynamics and interpreting the data.

### 2021 LRRWMO Lake Water Quality Monitoring Site



### SUNFISH/GRASS LAKE CITY OF RAMSEY, LAKE ID #02-0113

#### Background

Sunfish/Grass Lake is located in the City of Ramsey in Southwestern Anoka County. It is a small lake with a surface are of 35 acres. The lake does not have a public boat landing, but can be accessed through Sunfish Lake Park on the west side of the lake. The park has a fishing pier and public access to canoes and kayaks stored in the park. The lake is quite shallow, approximately 5 feet at the deepest point, with floating leaf, emergent, and submergent aquatic vegetation throughout. A small portion of the shoreline is developed with most of the lake being surrounded by park or woodland.

#### **2021 Results**

Sunfish/Grass Lake has not been extensively monitored in the past. 2021 was the fourth year in which ACD monitored the lake as part of the regular lake sampling efforts. The lake was previously monitored in 2016, 2017, & 2018 by ACD.

In 2021 Sunfish Lake's water quality was good compared with other lakes in this region (NCHF Ecoregion), receiving an



overall B+ letter grade. Total phosphorus (TP) and Chlorophyll-a (Cl-a) were better than state water quality standards. Secchi transparency readings were similar to past years but were obscured by vegetation or reached the bottom of the lake. This limits the usability of these transparency readings. All Secchi readings in the tables below are denoted as >, meaning that that the actual Secchi transparency was greater than the number recorded. Secchi readings fluctuated between >3.5 and >4.8 feet throughout 2021. The average total phosphorus concentration in 2021 was  $23.3\mu g/L$ . This was a decrease of  $9.7\mu g/L$ from 2018. The average chlorophyll-a concentration in 2021 was  $6.8\mu g/L$ , a decrease from the  $8.09\mu g/L$ average in 2018.

#### **Trend Analysis**

There is not yet enough data for a statistical trend analysis to be completed for any parameter.

#### Discussion

Sunfish/Grass Lake looks to be in good health, receiving an overall B+ grade, a slight improvement from 2018. This letter grade would likely be further substantiated if the depth of the lake and vegetation growth did not limit Secchi readings. Total phosphorus and chlorophyll-a concentration remain well below state water quality standards for shallow lakes.

#### SUNFISH/GRASS LAKE City of Ramsey, Lake ID #02-0113 2021 Results



Secchi transparency was added to this graph for visualization purposes, but note that actual reading were at the bottom of the lake or obscured by vegetation so all Secchi transparency reading are greater than the numbers shown.

Sunfish Lake (aka Gra	iss Lake)	02-0113-00-201											_		
2021 Water Quality Da	ata	Date:	5/5/2021	5/18/2021	6/3/2021	6/16/2021	6/30/2021	7/19/2021	8/2/2021	8/17/2021	8/30/2021	9/16/2021			
		Time:	14:14	13:10	13:05	13:26	12:21	13:05	12:20	13:05	13:15	12:38			
	Units	R.L.*											Average	Min	Max
pН		0.1	8.25	8.47	8.64	8.94	9.16	9.25	8.54	8.49	8.45	8.17	8.64	8.17	9.25
Specific Conductance	mS/cm	0.01	0.387	0.364	0.334	0.325	0.309	0.332	0.382	0.397	0.401	0.384	0.362	0.309	0.401
Turbidity	FNRU	1		9.8		11.5	11.5	7.9	9.5	17.0	15.2	2.7	11	3	17
D.O.	mg/l	0.01	19.48	14.31	14.06	13.08	14.25	14.62	20.11	11.74	12.48	9.79	14.39	9.79	20.11
D.O.	%	1	129.6%	162.9%	182.4%	154.4%	165.1%	191.4%	183.0%	142.9%	150.1%	117.3%	162%	130%	191%
Temp.	°C	0.1	15.06	21.32	23.07	26.82	25.87	27.94	24.60	25.08	24.39	20.76	23.5	15.1	27.9
Temp.	°F	0.1	59.1	70.4	73.5	80.3	78.6	82.3	76.3	77.1	75.9	69.4	74.3	59.1	82.3
Salinity	%	0.01	0.18	0.17	0.16	0.16	0.15	0.16	0.18	0.19	0.20	0.18	0.17	0.15	0.20
Cl-a	ug/L	1	6.40	6.20	3.60	3.60	4.40	8.00	13.40	5.30	11.60	5.30	6.8	3.6	13.4
T.P.	mg/l	0.005	0.019	0.029	0.016	0.023	0.013	0.027	0.035	0.014	0.027	0.023	0.023	0.013	0.035
T.P.	ug/l	5	19	29	16	23	13	27	35	14	27	23	23	13	35
Secchi	ft		>3.5	>4.83	>4.16	>4.083	>3.5	>4.75	>3.58	>3.6	>4.08	>4.5	>4.06	3.5	4.8
Secchi	m		>.07	>1.47	>1.27	>1.24	>1.07	>1.45	>1.09	>1.10	>1.24	>1.37	>1.24	1.1	1.5
Physical			1	3	2	2	2	2	2	2	2	3	2.1	1.0	3.0
Recreational			1	2	2	3	2	3	2	3	3	2	2.3	1.0	3.0
*Reporting Limit															

Sunfish Lake (ake Cross Lake) 02 0112 00 201

\*Reporting Limit

#### **Historical Annual Averages**



Due to Secchi transparency exceeding lake depth or being obscured by vegetation in recent years, it was not included in the overall grade, but was included on the graphs

Year	TP (µg/L)	Cl-a (µg/L)	Secchi (m)	Overall
2016	С	А	NA	В
2017	Α	А	NA	Α
2018	С	А	NA	В
2021	В	А	NA	<b>B</b> +
State Standards	60 ug/L	20 ug/L	>3.3 ft	

### **Stream Water Quality – Biological Monitoring**

Partners:	LRRWMO, ACD, Anoka High School
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. 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 generally 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 through biological monitoring while providing an environmental education service to the community.
Location:	Rum River behind Anoka High School, south side of bunker Blvd. Anoka
<b>Results:</b>	Results for each site are detailed on the following pages.

#### **Data Interpretation**

Consider all biological indices of water quality together rather than look 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:

# FamiliesNumber of Invertebrate families. Higher values indicate better quality.<u>EPT</u>Number of families of the generally pollution-intolerant orders.<br/>Ephemeroptera, Plecopter, Trichoptera. Higher numbers indicate better<br/>stream quality.Family Biotic Index (FBI)An Index that utilizes known pollution tolerances for each family. Lower

ndex (FBI) An index that utilizes known pollution tolerances for each family. Lowe numbers indicate better stream quality.

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

Population Attributes Metrics

**% EPT** compares the number of organisms in the EPT orders (Ephemeroptera, Plecoptera, Trichoptera) to the total number of organisms in the sample. A high percent of EPT is good.

% Dominant Family measures the percentage of individuals in the sample that are in the sample's most abundant family. A high percentage is usually bad because it indicates low evenness (one of a few families dominate, and all others are rare)

### **RUM RIVER**

Behind Anoka High School, Anoka

Rum River

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#### Last Monitored

By Anoka High School in 2020

Monitored Since 2001

#### **Student Involvement**

Approximately 100 students in 2021, over 1,400 total since 2001

#### Background

The Rum River originated 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 riffles (northern part of the 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 bear Bunker Lake Blvd Bridge behind Anoka High School. Most sampling has been conducted in a backwater rather than the main channel.

#### Results

Anoka High school classes monitored the Rum River in spring of 2021 with Anoka Conservation District (ACD) oversight. The results for spring 2021 continued a decline since 2017, but were still slightly better than the overall historical average. Students collected 21 different families of invertebrates, which is the lowest amount collected since 2014. Five unique families of the most sensitive taxa (Ephemeroptera, Plecoptera, and Trichoptera, EPT), were collected in 2021.

#### Historical Biomonitoring Results for Rum River behind Anoka High School



Year	2016	2017	2018	2019	2021	Mean
Season	Spring	Spring	Spring	Spring	Spring	2001-2019
FBI	6.90	5.50	6.40	6.60	6.90	7.1
# Families	32	41	33	27	21	19.4
EPT	9	12	10	7	5	4.6
Date	17-May	15-May	14-May	10-May	11-May	
Sampled By	AHS	AHS	AHS	AHS	AHS	
Sampling Method	MH	MH	MH	MH	MH	
Mean # Individuals/Rep.	3363	1439	1648	1341	687	
# Replicates	1	2	3	1	1	
Dominant Family	Siphlonuridae	Pelecypoda	Siphlonuridae	Siphlonuridae	Siphlonuridae	
% Dominant Family	74.9	26.6	48.1	66.8	1.5	
% Ephemeroptera	78.7	14.9	65.1	74.4	1.6	
% Trichoptera	0	0.1	0.1	0.7	0	
% Plecoptera	0.4	26	1.9	0.8	0	
% EPT	79.1	41	67.1	75.9	1.6	]

#### Biomonitoring Data for the Rum River behind Anoka High School – Most Recent Five Years

#### Discussion

Historically, both chemical and biological monitoring indicate the good water quality of this river. Poorer results in 2021 may reflect varying site and sampling conditions rather than a shift in the biological community. Habitat is ideal for a variety of stream life, and includes a variety of substrates, plenty of woody, snags, riffles, and pools.

Historically, biomonitoring near Anoka High School was conducted mostly in a backwater area that, during periods of low water level, has a murky bottom and does not receive good flow. During those conditions, the area was unlikely to be occupied by families which are pollution intolerant. Lower water levels in 2021 could have contributed to the decline in sensitive families found.



# Wetland Hydrology

Partners:	LLRWMO, ACD
Description:	Continuous groundwater level monitoring at a wetland boundary to a minimum depth of 35 inches. Countywide, ACD maintains a network of 23 wetland hydrology monitoring stations.
Purpose:	To provide understanding of wetland hydrology, including the impacts of climate and land use change. These data aid in delineation of nearby wetlands by documenting hydrologic trends including the timing, frequency, and duration of saturation.
Locations:	AEC Reference Wetland, Connexus Energy Property on Bunker Lake Blvd, Ramsey Rum River Central Reference Wetland, Rum River Central Park, Ramsey Lake Itasca Trail Reference Wetland, Lake Itasca Park, Ramsey
<b>Results:</b>	See the following pages

### Lower Rum River Watershed Wetland Hydrology Monitoring Sites



### **AEC REFERENCE WETLAND**

Cottonwood Park, adjacent to Connexus Energy Offices, Ramsey



#### **Vegetation at Well Location:**

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

loam

**Other Notes:** This well is located at the wetland boundary. Anoka County was in drought beginning in June 2021, with most of the growing season spent in a severe drought condition. This monitoring well, which extended to a depth of 35 inches, was dry for most of the year.





### **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
Surrounding Soils:	Zimmerman fine san

#### Soils at Well Location:

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



#### **Vegetation at Well Location:**

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

**Other Notes:** Well is located at the wetland boundary. Equipment malfunction due to low water levels resulted in a brief data gap.

#### 2021 Hydrograph (Well depth 45 inches)



### LAKE ITASCA TRAILS REFERENCE WETLAND

Lake Itasca Trails Park, Ramsey

### Site Information

Monitored Since:	2013
Wetland Type:	2/6
Wetland Size:	~10 acres
Isolated Basin:	Yes
Connected to a Ditch:	No
Surrounding Soils:	Hubbard coarse sand

#### Soils at Well Location:

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

#### **Vegetation at Well Location:**

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

**Other Notes**: Well is located about 10 feet east and 6 inches downslope of the wetland boundary. DNR Public Water Wetland 2-339. Anoka County was in drought in most of 2021 after June. The well, which is approximately 35 inches deep, was dry for most of the year.







### Water Quality Grant Fund

Partners: LRRWMO, ACD

- **Description:** The LRRWMO provides cost share grants for projects on both public and private property that will improve water quality, such as repairing streambank erosion, restoring native shoreline vegetation, or installing rain gardens. The Anoka Conservation District administers this funding. Projects affecting the Rum River are given 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 buffer or other structures that filter runoff before it reaches the water bodies.

**Results:** Projects reported in the year they are installed.

#### LRRWMO Cost Share Fund Summary

2006 LRRWMO Contribution	\$ 1,000.00
2008 Expense – Herrala Rum Riverbank Stabilization	\$ 150.91
2008 Expense – Rusin Rum Riverbank Stabilization	\$ 225.46
2009 LRRWMO Contribution	\$ 1,000.00
2009 Expense – Rusin Rum River Riverbank Bluff Stabilization	\$ 52.05
2010 LRRWMO Contribution	\$ 0.00
2010 LRRWMO Expenses	\$ 0.00
2011 LRRWMO Contribution	\$ 0.00
2011 Expense – Blackburn Rum Riverbank Stabilization	\$ 543.46
2012 LRRWMO Contribution	\$ 1,000.00
2013 LRRWMO Contribution	\$ 1,000.00
2013 Expense – Geldacker Mississippi Riverbank Stabilization	\$ 1,000.00
2014 LRRWMO Contribution	\$ 2,050.00
2006-2014 Expense – Smith Rum Riverbank Stabilization	\$ 2,561.77
2015 LRRWMO Contribution	\$ 1,000.00
2016 LRRWMO Contribution	\$ 1,000.00
2016 Expense – Brauer Rum Riverbank Stabilization	\$ 1,150.00
2018 LRRWMO Contribution	\$ 2,000.00
2014-2016 Expense – Anoka Rain Garden Plants	\$ 916.59
2019 LRRWMO Contribution	\$ 2,000.00
2020 LRRWMO Contribution	\$ 2,000.00
2021 LRRWMO Contribution	\$ 2,000.00
Fund Balance	\$ 9,449.76

### **LRRWMO Annual Report to BWSR**

Partners: LRRWMO, ACD

- **Description:** The Lower Rum River Watershed Management Organization (LRRWMO) is required by law to submit an annual report to the Minnesota Board of Water and Soil Resources (BWSR), the state agency with oversight authority. This report consists of an up-to-date listing of LRRWMO Board members, activities related to implementing the LRRWMO Watershed Management Plan, the status of municipal water plans, financial summaries, and other work results. The report is due annually, 120 days after the end of the URRWMO's fiscal year (April 30th).
- Purpose:To document progress toward implementing the LRRWMO Watershed Management<br/>Plan and to provide transparency of government operations.

Location: Watershed-wide

**Results:** Anoka Conservation District prepared the LRRWMO annual report to BWSR.

### **LRRWMO Website Maintenance**

Partners: LRRWMO, ACD

**Description:** The Lower Rum River Watershed Management Organization contracted the Anoka Conservation District to maintain the LRRWMO website.

Purpose:To increase awareness of the LRRWMO and its programs. The website also provides<br/>tools and information about the LRRWMO and results of WMO activities.

Location: <u>http://www.lrrwmo.org/</u>

**Results:** In 2021, ACD maintained the existing LRRWMO website, paid the domain registration and hosting fees, and posted meeting minutes and agendas.



### **LRRWMO Newsletters**

Partners: ACD, LRRWMO

**Description:** ACD prepares state-required LRRWMO outreach pieces such as newsletter articles or infographics to be printed in member cities newsletters. Topics include stormwater management, wetland regulation and protection, water quality projects, watershed planning, or others.

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

**Location:** Watershed wide

**Results:** ACD prepared five articles for the LRRWMO in 2021. The topics included inviting public comments on the new LRRWMO watershed plan, Rum River stabilization, well sealing grants, septic system fix-up grants, adopt-a-drain, and streambank stabilization tips. Articles were printed in city newsletters.

#### Septic System Fix-Up and Abandoned Well Sealing Grants Available!

Homeowners struggling with non-compliant septic systems, or needing to seal an old unused well can receive help. Grant funds are available to pay a large portion of these costs. Anyone interested should contact the Anoka Conservation District.

Septic systems are one of the most expensive and critical components of a home where city sewer and water is not present. Failure can be dramatic, such as sewage backing up onto the lawn. Or a septic system can be deemed non-compliant because it does not have enough vertical separation from saturated soils. A non-



compliant septic system can be a problem for owners, or be an obstacle to selling the property. Grants are awarded because failing septic systems threaten groundwater and nearby lakes and streams.

Old, unused private wells are a less noticeable threat to groundwater. These wells act like a straw into the aquifer. They can provide a direct route for pollutants to move from the surface to aquifer. When selling a home, owners are required to disclose wells, and buyers often don't want the liability of an unused, unsealed well. Grants can help protect groundwater and remove a homeowner's liability. Grants for well sealing are only available in designated Drinking Water Supply Management Areas (see map).

Applications for both the Septic System Fix-Up Grants and the Well Sealing Grants are accepted through the Anoka Conservation District. Learn more about the available grants and see if you qualify by visiting www.AnokaSWCD.org/financial-support or by contacting Kris Larson (Kris.Larson@anokaswcd.org or 763-434-2030 ext. 11).

For more information on how groundwe contaminated and what we can do to p search YouTube for "Our Groundwater Contamination," or visit: https://youtu, video explains different sources of pollu travel and build up over time, and what become contaminated. The video concl that "everyone has the responsibility to from getting into our groundwater. Wh to prevent pollution, we can ensure cle and for many generations to come."

The Lower Rum River Watershed Mana made up of three cities: Andover, Anok particularly those that flow across city l



#### Join the Growing Community of Storm Drain Adopters!

Anoka County residents have prevented nearly 400 pounds of algae from growing in our lakes and streams by doing this one simple thing: Adopting a Storm Drain!

Trash and decaying organic debris like fallen leaves are harmful to lakes, rivers, and streams. As leaves decompose, the resulting nutrients fuel algae growth. The unsightly algae blooms can cover the surface of polluted lakes, sucking oxygen out of the water and choking fish and native plants. Keeping leaves and other pollution out of our storm drains helps keep our lakes and rivers clean and clear.

Since the start of the Adopt a Drain program, over 7,500 people have adopted drains throughout Minnesota and collectively



prevented 325,000 pounds of pollution from getting into our waters. This is the largest community engagement program of its type in the entire United States!

### Anoka County Water Resource Outreach Collaborative

Partners: ACD, Anoka County, WMO's, watershed districts, cities and townships

- **Description:** The Anoka County Water Resources Outreach Collaborative (AWROC) is a partnership formed in 2018 to implement a comprehensive water outreach and engagement program. Its purposes are to reduce duplication while improving the cost effectiveness of public outreach about water resources.
- **Purpose:** To inform community residents, businesses, staff, and decision-makers about issues affecting local waterbodies and groundwater resources. To achieve behavioral changes that improve water quality and recruit people to install water quality projects.

#### Location: Countywide

**Results:** Thirty-four events were attended or facilitated by the Anoka Conservation District's outreach specialist throughout the county in 2021. These events included staffing a booth at community events and facilitating workshops including Andover Family Fun Fest (367 interactions), Anoka Riverfest (523 interactions), and Ramsey Business Expo (unknown interactions), QCTV interview about well sealing (unknown interactions), and others.

The adopt-a-drain program was extensively promoted in the LRRWMO in 2021. 77 new drains were adopted by volunteers. In this program, volunteers adopt a storm drain in their neighborhood and commit to cleaning it periodically. This results in less debris, sediment, and pollutants reaching area ponds, lakes, or rivers. It can also reduce risks of street flooding from clogs and reduce maintenance at stormwater treatment practices.



Finally, the outreach collaborative staff procuded additional articles for city newsletters beyond the one that is state-required. Those are reported in the previous section.

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