



# 2009 Report on the Water Quality of Minnesota Streams

Citizen Stream Monitoring Program

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Minnesota Pollution Control Agency

Minnesota Pollution Control Agency  
520 Lafayette Road North  
Saint Paul, MN 55155-4194  
<http://www.pca.state.mn.us>  
651-296-6300 or 800-657-3864 toll free  
TTY 651-282-5332 or 800-657-3864 toll free

The Minnesota Pollution Control Agency thanks the Citizen Stream Monitoring Program volunteers for their efforts in collecting water-quality data. Their commitment and dedication to stream monitoring and protection are greatly appreciated.

Special thanks to the following people for their contributions to this report:

### Report Prepared by

Johanna Schussler  
Miranda Nichols  
Laurie Sovell  
Kou Vang

### Data Entry

Nancy Flandrick  
Jean Garvin  
Lynda Nelson  
Miranda Nichols  
Dereck Richter  
Sandra Simbeck

### Cover Photo Provided by

Debrah Adams  
Talmadge River, 8/21/2009

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*The MPCA is reducing printing and mailing costs by using the Internet to distribute reports and information to a wider audience. For additional information, see the Web site: <http://www.pca.state.mn.us/water/csm.html>*

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# Introduction

The Minnesota Pollution Control Agency's (MPCA) Citizen Stream Monitoring Program (CSMP) began in 1998. The CSMP was designed to give individuals across Minnesota an opportunity for involvement in a simple yet meaningful stream monitoring program that provides data management and interpretation.

The CSMP uses a collaborative approach to stream monitoring by partnering with citizen volunteers who live on or near a stream, and who are interested in water quality. Any person or group willing to devote a small amount of time and energy on a regular basis can participate in the CSMP. The primary goals of the CSMP are to:

- ◆ Collect valuable water-quality data by expanding statewide stream monitoring
- ◆ Provide a basic program for anyone interested in stream monitoring
- ◆ Complement existing citizen efforts
- ◆ Facilitate awareness of water-quality issues & promote shared goals

Volunteers receive a transparency tube, rain gauge, data sheets, and instructions for taking measurements. Once enrolled, participants visit an established spot on a nearby stream once per week from April to September to measure Stream Transparency, Water Level (Stage), Appearance and Recreational Suitability. In addition to weekly stream measurements, rainfall is recorded daily. Volunteers are also encouraged to monitor immediately after large rainfall events whenever possible to track the effects of rainfall runoff on their stream. At the end of each monitoring season, volunteers submit their data to the MPCA. For more information about what CSMP volunteers measure and how it relates to stream health, please visit the CSMP Web site: <http://www.pca.state.mn.us/csmp>.

This report summarizes the data collected by CSMP volunteers during the past year. The first section presents a statewide summary of CSMP data. The second section contains data summaries for each individual site monitored.

## Section 1. Statewide CSMP Data Summary

### Stream Monitoring Results

CSMP volunteers monitor streams and rivers throughout Minnesota from April to September. The following tables and figures summarize the CSMP data and participation for the past year.

Figure 1 shows how the number of volunteers participating in the CSMP and how the number of sites they monitor has changed over the history of the program. A drop is seen from 2007 to 2008 because Red River River Watch program sites and volunteers were not included in the numbers for CSMP.

**Figure 1. CSMP Volunteers and Sites, 1998 - Present**

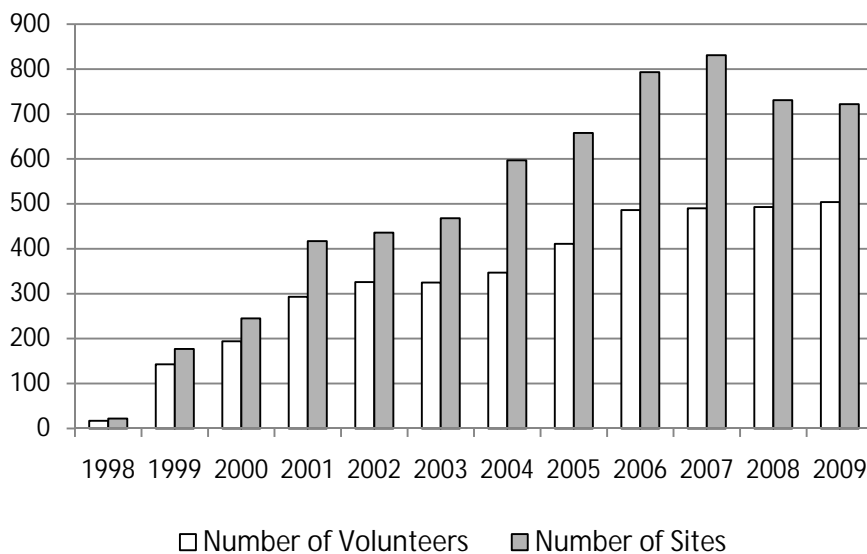


Table 1 shows the total number of sites, transparency tube (t-tube) readings, readings that were taken in response to a rain event, and the number of readings less than 20 cm for each major drainage basin. The 20 cm number is significant because readings less than 20 cm indicate an exceedance of the state water quality turbidity standard. (For more information see ‘How CSMP Data are Used,’ page 8.)

**Table 1. CSMP Data Summary by Major Drainage Basin**

Basin Name	Total Sites	Total T-Tube Readings	Total Rain Event Readings	Total Readings <20 cm
Cedar River	5	74	36	9
Des Moines River	7	90	36	59
Lake Superior	51	942	209	19
Lower Mississippi River	154	3010	917	168
Minnesota River	138	2472	917	521
Missouri River	4	84	19	28
Rainy River	6	83	36	0
Red River of the North	95	521	46	90
St. Croix River	51	791	180	19
Upper Mississippi River	211	2993	658	211

Figure 2 shows average transparency readings at each CSMP site throughout the state. There is a general trend of increasing average stream transparency from southwestern to northeastern Minnesota. Finer soils and more intensive land use, such as agriculture, are generally more common in the southern and western portions of the state, where average transparency is lower. Higher transparencies are generally found in the forested northeastern part of the state.

Figure 2. Average Transparency Readings Map

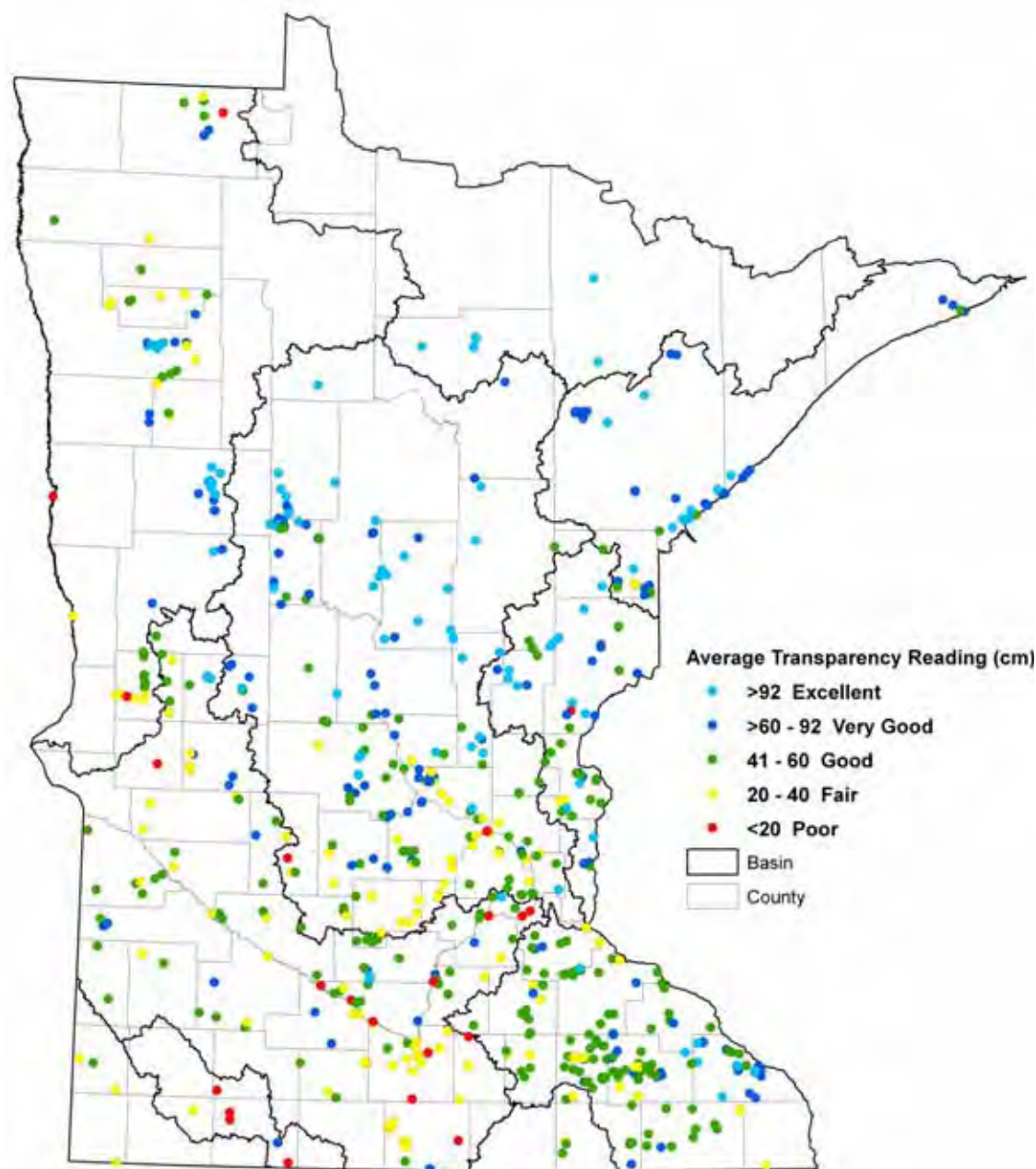
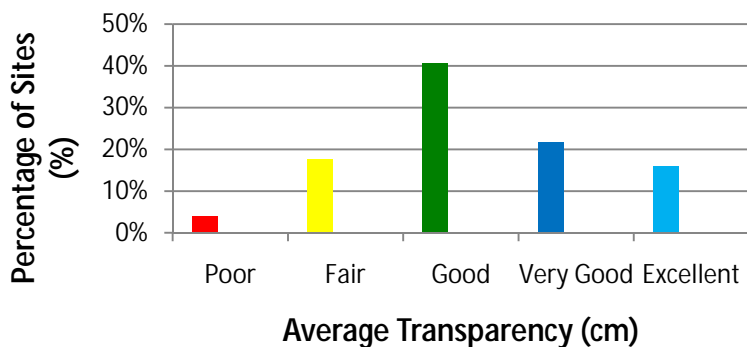


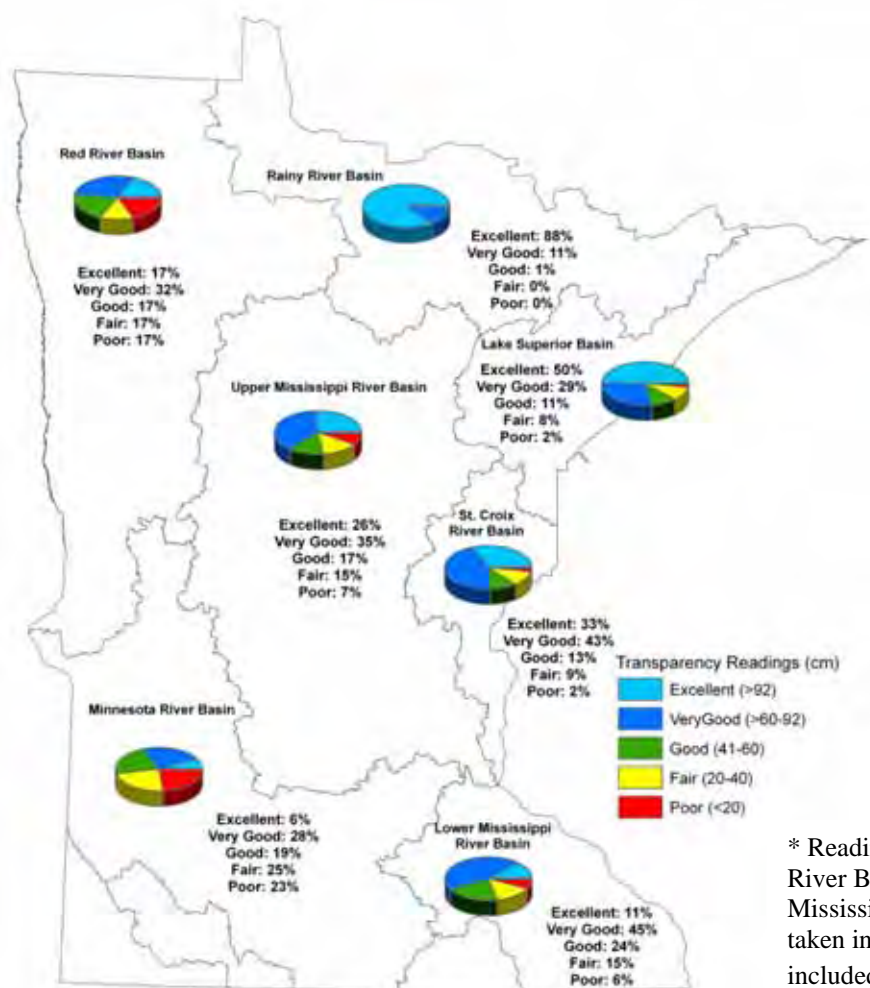


Figure 3 shows the percentage of readings in each transparency category, and Figure 4 shows the percentage of sites in each transparency category by major river basin.

**Figure 3: Percentage of CSMP Sites across Average Transparency Categories**



**Figure 4. Average Transparency Readings by Major River Basin\***

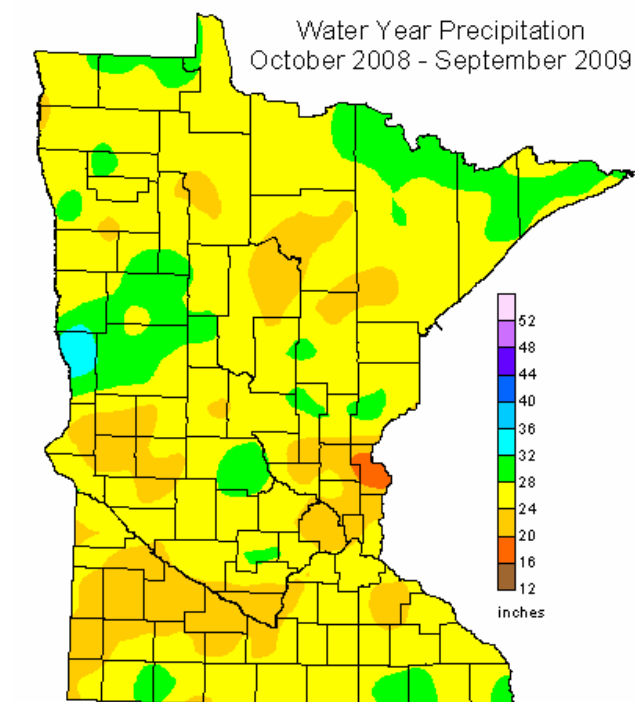


\* Readings taken in the Cedar & Des Moines River Basins were included in the Lower Mississippi River Basin's chart. Readings taken in the Missouri River Basin were included in the Minnesota River Basin's chart.

## Precipitation Monitoring

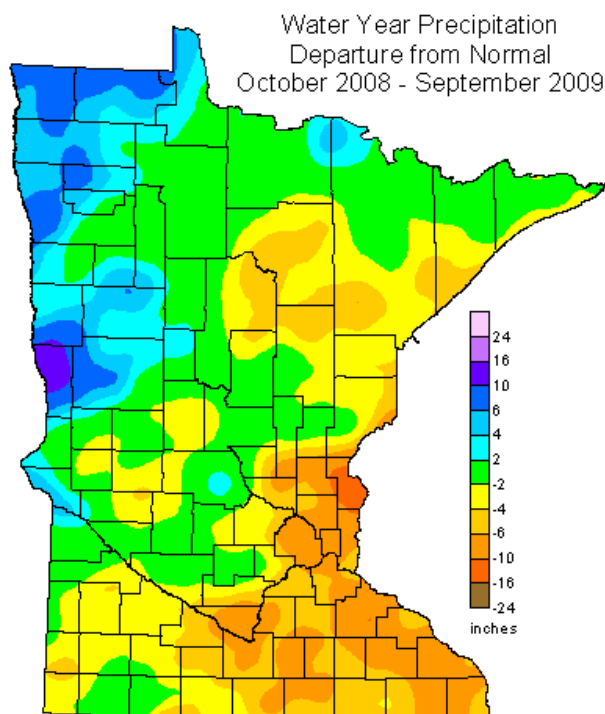
In addition to Transparency readings, CSMP volunteers also collect precipitation measurements. A summary of this data can be found in Section 2. The following figures show statewide precipitation amounts and “departure from normal” for the last water year.

Figure 5. Precipitation Map



State Climatology Office - DNR Waters, March 16, 2010  
Prepared by: State Climatology Office, DNR Waters

Figure 6. Departure from Normal Precipitation Map



State Climatology Office - DNR Waters, March 16, 2010

Precipitation data is important because some rainfall eventually makes its way to streams. Rainfall can affect a stream's water level or “stage” by increasing the amount and rate of water flowing through stream channels. Water quality changes in response to precipitation as a result of management practices used on the surrounding land. For example, in an area with too little vegetation to keep the soil in place, rainfall can influence stream transparency. It does this by carrying sediment and other materials to streams over land in runoff or underground through urban and rural subsurface drainage systems.

By recording rainfall on a daily basis and simultaneously measuring transparency and stream water level, volunteers and the MPCA can determine the connections among these factors.



## How CSMP Data are Used

CSMP data can be used to detect changes in stream condition. Changes can be tracked over time, or in response to land management practices adjacent to a river and across its watershed. Data are available for use by individuals, counties, and watershed projects, as well as by the state.

The primary use of CSMP data by the Minnesota Pollution Control Agency is to meet its obligations under the federal Clean Water Act (CWA). The CWA requires states to adopt water-quality standards to protect waters from pollution, to identify polluted waters, and to restore them. The standards define how much of a pollutant can be in the water and still allow the stream or river to meet its designated uses. Each stream or river segment has an assigned designated use such as drinking water, fishing (Aquatic Life), and swimming (Aquatic Recreation). Standards are set on a wide range of pollutants, including bacteria, nutrients, mercury, and turbidity to protect these uses. A water body does not support its designated use if it fails to meet one or more water quality standards set to protect that use.

Minnesota's statewide turbidity standard is set to protect Aquatic Life designated use on rivers and streams. Turbidity is the cloudiness or murkiness of water. When turbidity is high, transparency is usually low. Based on a comparison of transparency and turbidity data, the Minnesota Pollution Control Agency determined that the state turbidity standard is exceeded whenever transparency is less than 20 centimeters. A river does not support its Aquatic Life use when the turbidity standard is exceeded a certain number of times. In this way, transparency tube data collected as part of the CSMP is used to identify rivers that do not meet the turbidity standard, and thereby do not support their Aquatic Life use designation.

Figures 7 and 8 show how CSMP transparency tube data have impacted the number of Aquatic Life Non-Support ratings on stream segments over the last three cycles of testing.

**Figure 7. CSMP Data Use in MPCA Turbidity/Aquatic Life Assessment Process**

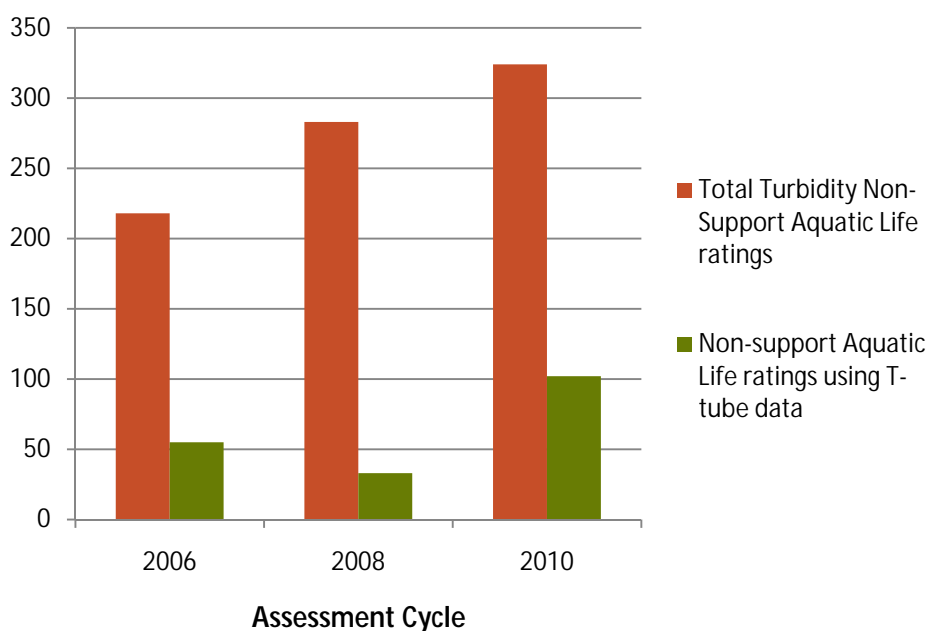
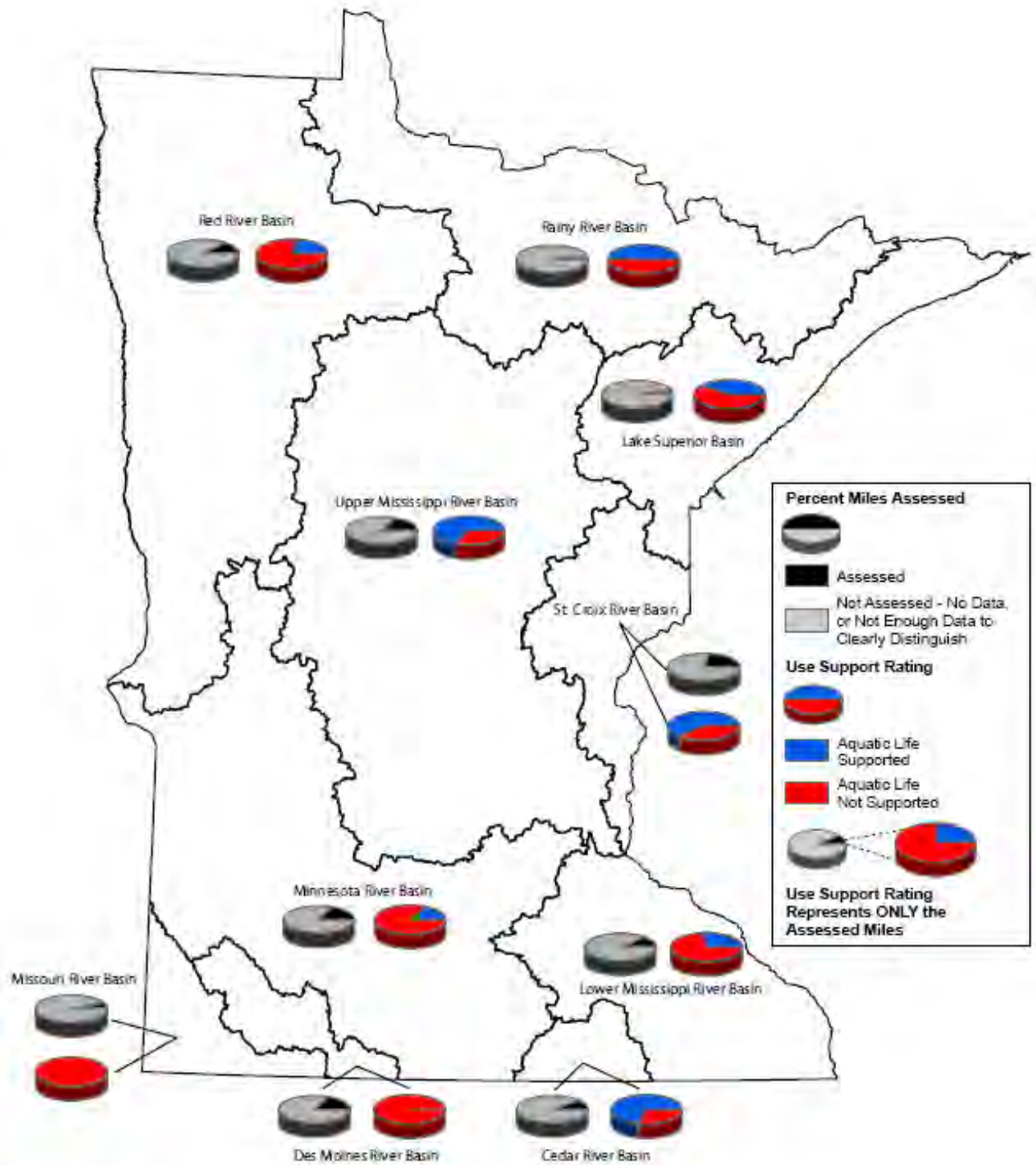


Figure 8. 2010 Aquatic Life Use Assessment for Rivers and Streams\*



\*Turbidity is one water quality standard set to assess Aquatic Life Use support on rivers and streams. Others standards include dissolved oxygen and biology (e.g. fish and invertebrate community). For additional information on water quality assessment in Minnesota, please visit the following web site: <http://www.pca.state.mn.us/water/tmdl/index.html>

## Trends over Time

Transparency tube data can also be used to determine if river clarity is improving, declining, or staying the same over time. To determine transparency tube trends at CSMP stations, the statistical program “R” was used to conduct a linear regression analysis for stations with a minimum of 5 years of data. Figure 9 shows the number of stations with a significant increase, decrease, or no change in transparency over time. Figure 10 shows the geographic distribution of changes in transparency at CSMP stations over time.

**Figure 9. Transparency Trends over Time**

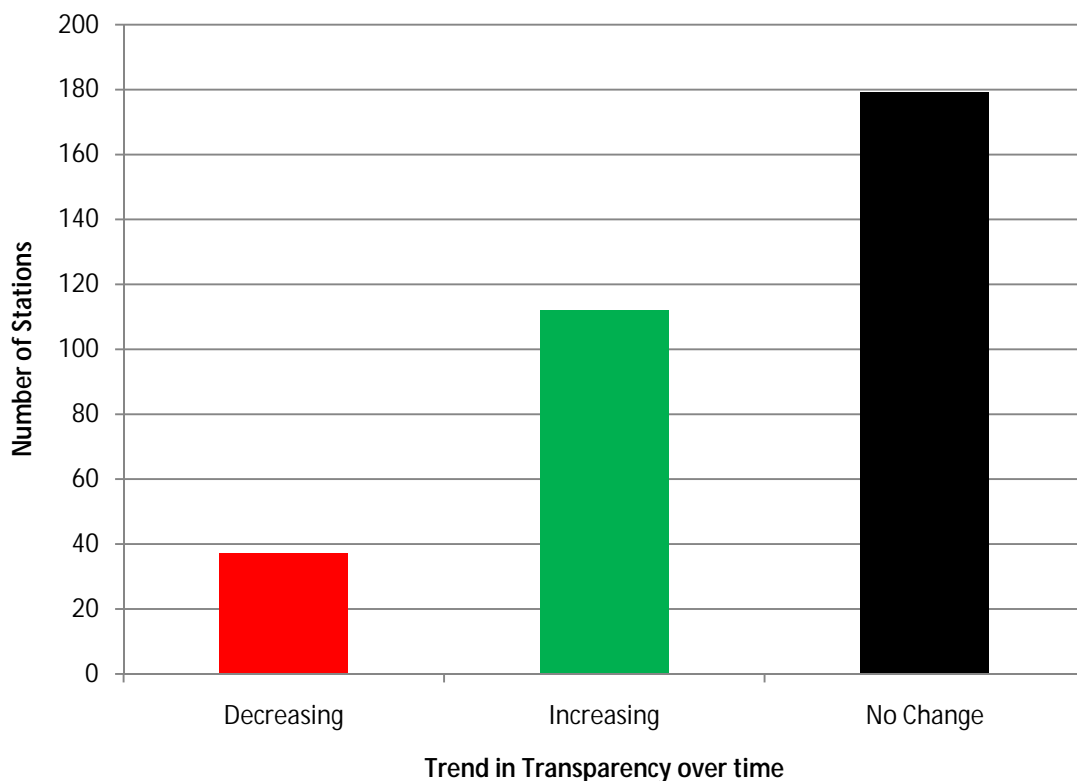
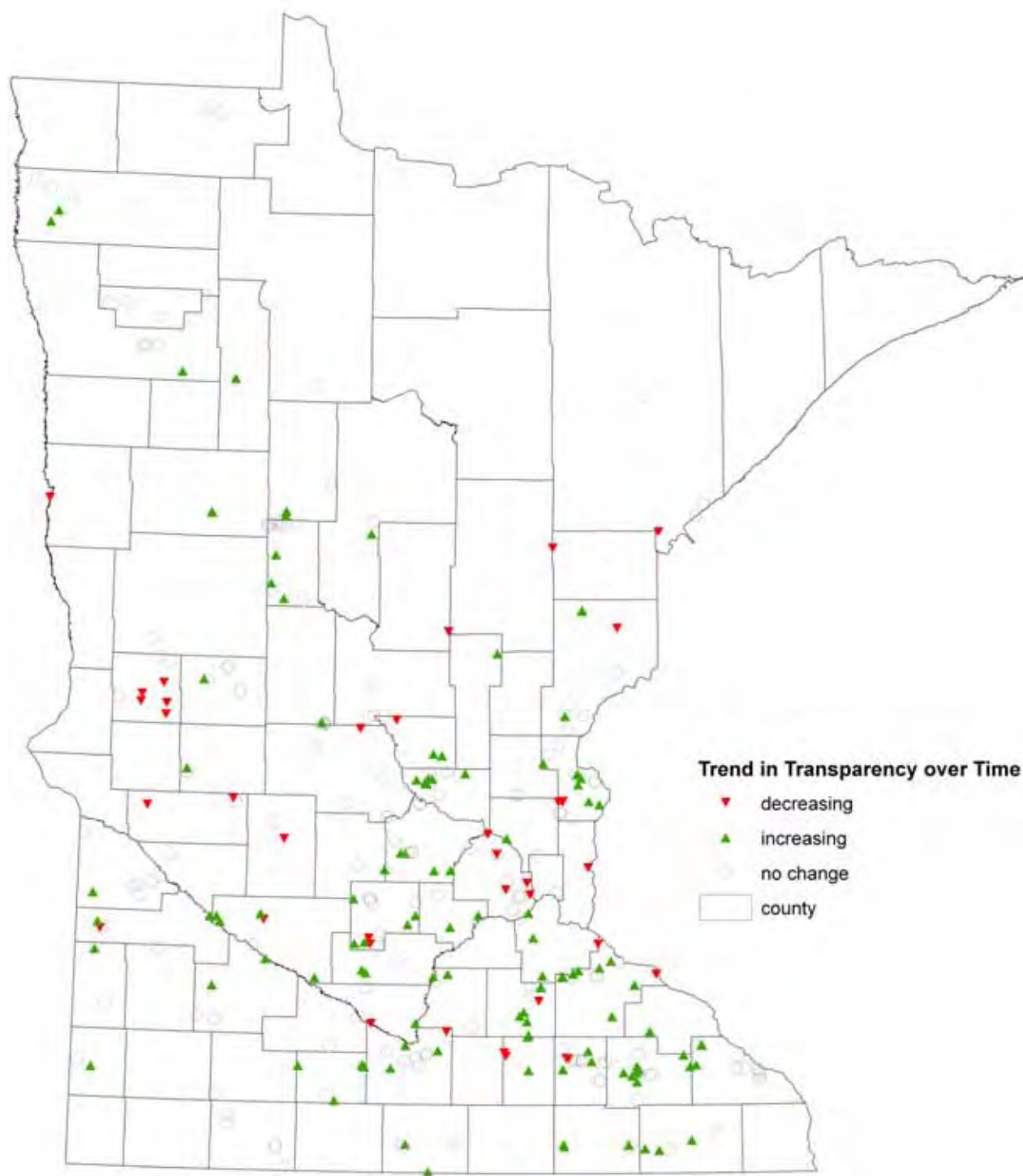


Figure 10. Map of Transparency Trends over Time

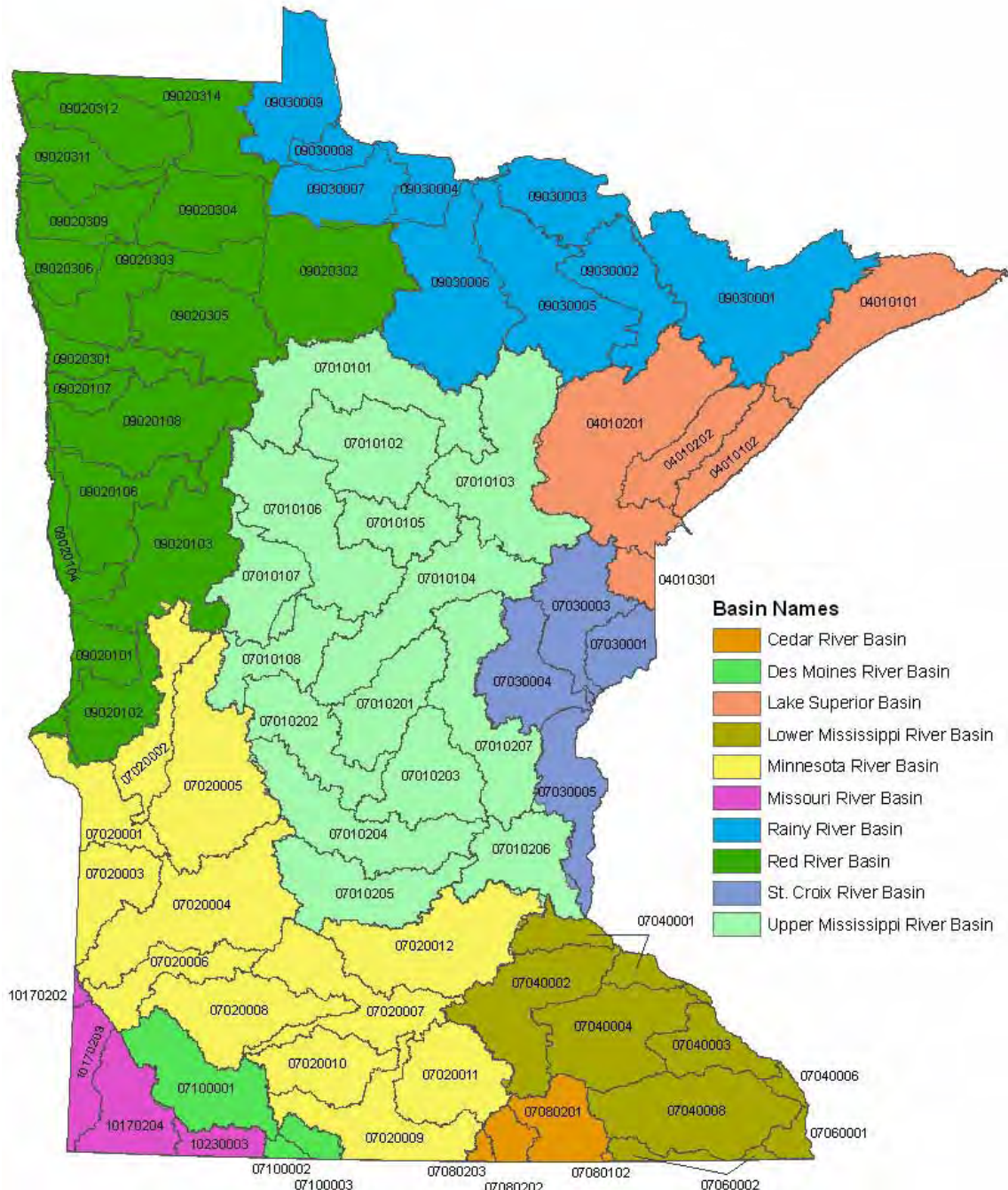




## Section 2. CSMP Individual Site Summaries

This section contains a summary of stream transparency and rain monitoring data for each individual CSMP site (Sites are not included if only rain data was submitted). **If data was collected using both 60 and 100 cm tubes, the 60 cm tube data will appear first and the 100 cm tube data will appear below it.** Data are sorted first alphabetically by basin, then numerically by watershed (specifically by the hydrologic unit code or HUC—see Figure 11), and then numerically by CSMP site number.

Figure 11. Minnesota Drainage Basins and Major Watersheds Map



## Cedar River Basin

### Cedar River Watershed (Hydrologic Unit Code - HUC -07080201)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Jacobsen Steve(60)	CSMP1713	Mower	Cedar R 1.5 mi S of Austin @ CSAH-28	5/21 - 11/1	40	22	60	23	0.6	6	15.9
Heimerman Dennis J.(60)	CSMP1718	Dodge	Cedar R 4 mi E of Blooming Pr, 600 ft N 750th St	4/18 - 10/2	45	1	60	16	18.3	11	15.0
Goetz Bob(60)	CSMP0246	Mower	Turtle CK @ CSAH-23 (4th Dr SW) in Austin, MN	4/5 - 10/20	40	6	60	28	20.2	14	17.1
Buckley Bill(60)	CSMP0077	Mower	Cedar River @ MN Hwy 105, S of Austin	4/25 - 10/30	50	13	60	7	26.0	5	

## Des Moines River Basin

### Des Moines River - Headwaters Watershed (Hydrologic Unit Code - HUC -07100001)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Sauder Harold(60)	CSMP0218	Jackson	Jack Creek	3/24 - 10/31	19	7	33	11	25.2	6	
Ringkob Roger(60)	CSMP0475	Jackson	Unn Trib to Des Moines R N of CASH-14, "spring"	4/26 - 10/6	60	60	60	10	17.9	2	
Ringkob Roger(60)	CSMP0417	Jackson	West Fork Des Moines River	4/26 - 10/6	10	8	17	10	17.9	1	
Markl Judy(60)	CSMP0563	Cottonwood	Des Moines River	3/24 - 9/11	12	8	17	5		1	
Copperud David(60)	CSMP1269	Nobles	Jack Creek @ US-59, 9.5 mi N of Worthington, MN	3/21 - 10/24	33	11	59	22	26.4	2	
Aden Dale(60)	CSMP0219	Jackson	Okabena Creek	4/4 - 10/26	12	5	23	24	24.9	19	

### Lower Des Moines River Watershed (Hydrologic Unit Code - HUC -07100002)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Lucht Izaak(60)	CSMP1592	Jackson	Des Moines R @ Petersburg Rd, 7 mi SSW of Jackson	3/20 - 10/17	15	9	20	8	16.6	5	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature



## Lake Superior Basin

### Lake Superior - North Watershed (Hydrologic Unit Code - HUC -04010101)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Schubert Rick(100)	CSMP1253	Cook	Flute Reed R @ CR-88, "R1"	4/21 - 10/27	61	9	100	17	15.2	0	11.6
Haertl Roger(100)	CSMP1244	Cook	Flute Reed R @ Camp 20 Rd, T62N R03W Sec 3, "R7"	5/21 - 9/17	85	52	100	13		3	
Betz Richard(60)	CSMP1622	Cook	Flute Reed River 2 mi NW of Hovland, MN	5/1 - 10/13	36	18	47	6	11.6	5	10.5
Betz Richard(100)	CSMP1622	Cook	Flute Reed River 2 mi NW of Hovland, MN	5/1 - 10/13	65	60	70	2	11.6	5	10.5
Alexander Deborah(100)	CSMP1589	Cook	Brule R 8.5 mi NW of Hovland, MN T63N R3E Sec 30	5/24 - 10/29	91	83	98	5	0.0	1	

### Lake Superior - South Watershed (Hydrologic Unit Code - HUC -04010102)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wilke Cheryl(100)	CSMP1649	Lake	Knife R 5 mi NW of Two Harbors	7/4 - 10/17	100	100	100	9		0	
Torrence Judith(60)	CSMP1549	St. Louis	Little Knife R 12 mi NE of Duluth @ Shilhon Rd	4/6 - 10/4	31	22	36	3	13.4	4	1.2
Torrence Judith(100)	CSMP1549	St. Louis	Little Knife R 12 mi NE of Duluth @ Shilhon Rd	4/6 - 10/4	94	56	100	24	13.4	4	1.2
Schwartz Linda(100)	CSMP0648	St. Louis	Chester Creek E of Kenwood Ave, in Duluth	4/12 - 10/26	98	50	100	20	12.0	11	14.0
Schwartz Linda(100)	CSMP1426	St. Louis	E Branch Chester Ck @ Toledo St. W in Duluth	4/12 - 10/26	100	100	100	27	12.0	15	11.5
Ronning Todd(60)	CSMP1255	Lake	Skunk Creek in Two Harbors, MN	3/18 - 9/30	19	1	47	19	13.2	19	
Ronning Todd(100)	CSMP1255	Lake	Skunk Creek in Two Harbors, MN	3/18 - 9/30	93	64	100	27	13.2	19	
LaVigne Beth(60)	CSMP0647	St. Louis	Tischer Ck at 4th St in Duluth	4/15 - 9/27	48	48	48	1	7.1	0	
LaVigne Beth(100)	CSMP0647	St. Louis	Tischer Ck at 4th St in Duluth	4/15 - 9/27	99	96	100	8	7.1	0	
Hedman Steve(100)	CSMP1574	St. Louis	E Br Amity CK 50 ft dwnstrm of Jean Duluth Rd	4/13 - 10/17	100	94	100	26	13.9	3	

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Lake Superior - South Watershed (Hydrologic Unit Code - HUC -04010102)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Hamilton Barbara(60)	CSMP1656	Lake	Stewart River 3 mi NE of Two Harbors, MN	7/1 - 9/30	60	60	60	5	6.6	1	
Hamilton Barbara(60)	CSMP1658	Lake	Silver Ck 3 mi NE of Two Harbors, MN	7/1 - 9/30	60	60	60	5	6.6	1	
Hamilton Barbara(60)	CSMP1657	St. Louis/Lake	Knife River in Knife River, MN	7/1 - 9/30	60	60	60	5	6.6	1	
Hamilton Barbara(100)	CSMP1657	St. Louis/Lake	Knife River in Knife River, MN	7/1 - 9/30	94	69	100	5	6.6	1	
Hamilton Barbara(100)	CSMP1658	Lake	Silver Ck 3 mi NE of Two Harbors, MN	7/1 - 9/30	100	100	100	5	6.6	1	
Hamilton Barbara(100)	CSMP1656	Lake	Stewart River 3 mi NE of Two Harbors, MN	7/1 - 9/30	100	100	100	5	6.6	1	
Furo Larry(100)	CSMP1596	St. Louis	Little Knife R 250 ft dwnstrm Homestead Rd.	5/31 - 10/31	94	24	100	129	15.1	57	10.9
Berdan Frank(100)	CSMP0854	St. Louis	Talmadge River @ CR-281 (Cant Rd)	3/15 - 9/18	91	43	100	21	6.9	4	10.1
Adams Debrah(60)	CSMP1573	St. Louis	Talmadge R near Old North Shore Rd, T51/R13W/S24	3/29 - 10/20	57	57	57	2	11.2	8	
Adams Debrah(100)	CSMP1573	St. Louis	Talmadge R near Old North Shore Rd, T51/R13W/S24	3/29 - 10/20	88	41	100	22	11.2	8	
.Musick Timothy(60)	CSMP1069	St. Louis	Lester R @ Lester Park Br, 1/4 mi upst of mouth	5/20 - 10/7	30	21	46	3	12.8	4	16.4
.Musick Timothy(100)	CSMP1069	St. Louis	Lester R @ Lester Park Br, 1/4 mi upst of mouth	5/20 - 10/7	86	86	86	1	12.8	4	16.4

**St. Louis River Watershed (Hydrologic Unit Code - HUC -04010201)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Taylor Steve(100)	CSMP1727	St Louis	East Swan Ck at Swinnerton Rd, 6 mi SE of Hibbing	4/30 - 10/13	89	48	100	23	13.3	1	14.5
Sterle Ron(100)	CSMP1728	St Louis	East Swan R at CR-444, 7 mi SE of Hibbing	4/30 - 10/18	71	3	100	21	14.4	0	15.7
Pulford Mary(100)	CSMP0831	St. Louis	Keene Creek E of Okerstrom Rd	3/23 - 10/3	100	100	100	24	19.0	1	
Nyhus John(100)	CSMP0249	St. Louis	Embarrass River @ CSAH 20, 4 mi SE of Gilbert	5/10 - 11/4	100	100	100	5	15.2	1	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**St. Louis River Watershed (Hydrologic Unit Code - HUC -04010201)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Morrell Matthew A.(60)	CSMP1690	Carlton	Unnamed Strm ("Drainage R") 8 mi E of Cromwell, MN	5/19 - 10/17	44	37	52	21	16.5	1	18.8
Miklavcich Gerald(100)	CSMP1725	St Louis	Barber Ck at CSAH-16, 4.4 mi SE of Hibbing	5/3 - 10/21	66	21	98	37	12.6	13	15.4
Lehto Karen(60)	CSMP1037	St. Louis	Midway R @ Midway Rd (CSAH 13) S of Adolph, MN	5/5 - 10/7	59	52	60	10	10.7	0	20.8
Lehto Karen(100)	CSMP1037	St. Louis	Midway R @ Midway Rd (CSAH 13) S of Adolph, MN	5/5 - 10/7	58	54	61	2	10.7	0	20.8
Gargano Charles(100)	CSMP1726	St Louis	Dempsey Ck at Townline Rd, T57N S20W S36	5/6 - 10/13	73	40	98	23	10.3	9	16.8
Elfstrand Suzi(60)	CSMP1666	St Louis	Trimble Ck @ Mesaba Rd 2.5 mi E of Embarrass	3/5 - 9/30	60	57	60	19	16.1	1	8.8
Elfstrand Suzi(60)	CSMP1665	St. Louis	Embarrass R @ Salo Rd in Embarrass, MN	3/5 - 9/30	60	60	60	22	16.1	1	8.8
Elfstrand Suzi(100)	CSMP1665	St. Louis	Embarrass R @ Salo Rd in Embarrass, MN	3/5 - 9/30	96	66	100	22	16.1	1	8.8
Elfstrand Suzi(100)	CSMP1666	St Louis	Trimble Ck @ Mesaba Rd 2.5 mi E of Embarrass	3/5 - 9/30	98	70	100	19	16.1	1	8.8
Dilley Steve(100)	CSMP1724	St Louis	Unnamed trib to E Swan CK @ CR-444 4 mi SE Hibbing	5/2 - 10/20	77	54	87	21	12.6	0	17.2
Brown Dan(100)	CSMP1723	St Louis	E SWAN CK AT CSAH-16 2 MI SE OF HIBBING	5/4 - 10/22	69	0	99	26	14.3	0	14.0
Andrews Carol(100)	CSMP1607	St. Louis	St. Louis R @ Norway Ridge RD, T56/R18W/S19	7/12 - 10/31	97	70	100	11	4.9	0	

**Cloquet River Watershed (Hydrologic Unit Code - HUC -04010202)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
McKenzie Douglas(100)	CSMP1668	St Louis	Beaver R @ Schultz Rd, T51N R14W Sec. 7	3/15 - 10/31	80	50	98	34	21.5	3	12.9
Host George(100)	CSMP1103	St. Louis	Helwig Ck .13 mi E of US-53, at Independence	5/1 - 9/22	91	67	100	10	10.9	0	
Host George(100)	CSMP1101	St. Louis	Cloquet R @ MN-53 nr Independence	5/1 - 9/22	99	91	100	8	10.9	0	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Nemadji River Watershed (Hydrologic Unit Code - HUC -04010301)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Ruud David & Kathy(100)	CSMP1709	Carlton	Net R @ CR-145	4/15 - 10/11	72	54	98	23		6	
Oswood Susan(60)	CSMP1703	Carlton	Clear Ck @ CR-103	3/29 - 8/30	35	14	55	21		1	13.9
Oswood Susan(60)	CSMP1704	Carlton	Nemadji R @ CR-103	3/29 - 8/30	31	11	56	21		1	14.3
Oswood Susan(100)	CSMP1703	Carlton	Clear Ck @ CR-103	3/29 - 8/30	55	55	55	1		1	13.9
Oswood Susan(100)	CSMP1704	Carlton	Nemadji R @ CR-103	3/29 - 8/30	57	57	57	1		1	14.3
Haynes George & Rosanne(60)	CSMP1702	Carlton	Net R @ Co Rd 8 in Holyoke Park, Holyoke, MN	4/2 - 9/11	55	33	60	9	13.7	11	
Haynes George & Rosanne(100)	CSMP1702	Carlton	Net R @ Co Rd 8 in Holyoke Park, Holyoke, MN	4/2 - 9/11	78	35	100	24	13.7	11	
Harrington-Hall Lynn(100)	CSMP1701	Carlton	Blackhoof R near Valley View Rd, T47N R17W S10	4/10 - 10/14	98	75	100	25	16.8	4	
Finifrock Roger(60)	CSMP1708	Carlton	Nemadji Ck @ CSAH-11	4/5 - 10/5	29	6	40	5	7.7	3	
Finifrock Roger(60)	CSMP1707	Carlton	Hunters Ck @ CSAH-6	4/5 - 10/5	40	35	44	2	7.7	3	
Finifrock Roger(100)	CSMP1707	Carlton	Hunters Ck @ CSAH-6	4/5 - 10/5	65	37	94	10	7.7	3	
Finifrock Roger(100)	CSMP1708	Carlton	Nemadji Ck @ CSAH-11	4/5 - 10/5	54	25	72	7	7.7	3	
Dahl Mike(60)	CSMP1706	Carlton	Little Net R @ DNR Trail BR near Bley Rd	5/13 - 10/9	42	21	57	9	20.0	6	
Dahl Mike(100)	CSMP1705	Carlton	Little Net R @ CSAH-8	5/13 - 10/9	83	28	100	10	20.0	6	
Dahl Mike(100)	CSMP1706	Carlton	Little Net R @ DNR Trail BR near Bley Rd	5/13 - 10/9	64	54	74	2	20.0	6	

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

## Lower Mississippi River Basin

### Mississippi River - Lake Pepin Watershed (Hydrologic Unit Code - HUC -07040001)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
White Tony(60)	CSMP1194	Dakota	Trib to South Ck @ Flagstaff	3/28 - 10/27	60	60	60	32	8.9	3	
White Tony(60)	CSMP1011	Dakota	North Ck @ 170th & Flagstaff in Lakeville	3/28 - 10/27	57	23	60	33	8.9	4	
Tressel Hank(60)	CSMP1616	Dakota	Vermillion R @ Hwy 68 brg, 3/4 mi NE of Etter	4/1 - 10/2	21	9	35	26		10	9.9
Sullivan Patrick(60)	CSMP1672	Dakota	Unn Ck (South) @ CSAH-23 in Lakeville, MN	5/16 - 10/19	58	45	60	24	7.4	4	
Roberts&Poss Harry & Amy(60)	CSMP0104	Goodhue	Wells Creek	4/30 - 10/1	44	26	60	20		8	16.2
Pletcher Sandra & Glenn(60)	CSMP1392	Dakota	Vermillion R 0.1 mi W of Vermillion @ CSAH-62	4/2 - 10/23	55	24	60	24	25.1	6	
Peters Andru(60)	CSMP1571	Goodhue	Gilbert CK off Safari Way in LK City, MN	2/10 - 10/30	46	4	60	33	22.2	12	13.0
Forsberg Dennis(60)	CSMP1529	Dakota	Vermillion R @ Donnelly Ave, 3 mi W of Vermillion	3/21 - 10/7	53	29	60	19	19.1	11	13.4
Flugstad Dean(60)	CSMP1186	Wabasha	Miller Ck @ CSAH-9 in Lake City, MN	4/4 - 9/29	59	40	60	23	7.3	3	12.0
Diercks Richard(60)	CSMP0080	Goodhue	Wells Creek	4/1 - 10/23	60	60	60	30	19.3	1	11.7
Carter Michelle(100)	CSMP1684	Dakota	Vermillion R near 4th St & Willow St in Farmington	8/4 - 10/24	79	19	100	15	11.8	7	
Beissel Bob & Liz(60)	CSMP1227	Dakota	Vermillion slough @ E 4 Brg, 1 1/8 Mi E Hastings	4/26 - 10/11	25	13	35	19	16.8	7	

### Cannon River Watershed (Hydrologic Unit Code - HUC -07040002)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wangen Roy(60)	CSMP0669	Le Sueur	Cannon River at LeSueur Co 12 Bridge	5/1 - 10/9	56	45	60	7	6.1	6	
Velasquez David(60)	CSMP0418	Goodhue	Cannon River	3/21 - 10/15	59	58	60	2	21.4	0	
Steenhoek Rose Ann(60)	CSMP0033	Rice	Prairie Creek	3/8 - 10/24	33	7	60	32	22.1	10	15.7

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Cannon River Watershed (Hydrologic Unit Code - HUC -07040002)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Schwendeman Peg(60)	CSMP0507	Goodhue	Prairie Creek @ 310th St.	4/1 - 9/30	58	41	60	17	11.8	2	17.5
Odette Dean(60)	CSMP1667	Dakota	Unnamed Trib 9 mi NW of Northfield, T112N 20W S8	5/14 - 10/4	52	24	60	20	15.7	0	
O'Connor Patrick(60)	CSMP1099	Rice	Cannon R dnst of RR Trestle, N of Faribault	5/13 - 10/11	52	23	60	19		5	
Norman B-J(60)	CSMP0044	Goodhue	Belle Creek	4/1 - 10/12	59	52	60	14	19.5	2	15.6
Nicholson Robert(60)	CSMP0859	Rice	Spring Ck W of Spring Ck Rd, DWNST of Pond "Site 2	4/20 - 10/26	50	18	60	28	5.9	3	16.0
Nicholson Robert(60)	CSMP0858	Rice	Spring Ck S of Woodley St, UPST of Pond "site 1"	4/20 - 10/26	58	37	60	28	5.9	4	14.4
NatureCenter River Bend(60)	CSMP0616	Rice	Straight R 2 mi SE of Fairbault, MN T109/R20/S4	3/23 - 10/6	59	52	60	17	19.3	0	19.8
Murray Andrew(60)	CSMP0736	Rice	unnamed trib. to Cannon River, T111N R20W Sec. 22	3/23 - 10/6	60	60	60	11	8.8	5	
Moorhouse Joyce E.(60)	CSMP0259	Goodhue	Prairie Creek	3/20 - 10/30	53	47	58	6	23.3	0	19.7
Montez Jan(60)	CSMP0742	Goodhue	Cannon River 1/4 mi dnst of Byllesby Dam	4/3 - 10/6	49	23	60	7	18.2	1	16.9
Mogren Gary R.(60)	CSMP0292	Rice	Straight River @ Walking Bridge	4/22 - 9/30	49	11	60	24	11.9	6	17.7
Lundstrom Ann(60)	CSMP0247	Dakota	Chub Creek	4/11 - 10/12	56	50	60	21	18.5	6	18.5
Larson Steven(60)	CSMP0725	Goodhue	Spring Creek at Industrial Rd.	4/1 - 10/27	38	5	60	37	24.1	8	14.6
Larson Steven(60)	CSMP0340	Goodhue	Cannon River @ abandoned road, 5 mi NW of Red Wing	4/1 - 10/27	49	19	60	37	14.5	8	17.0
Kubat Ryan(60)	CSMP1422	Steele	Straight R @ North St. Br in Owatonna	5/11 - 10/6	36	25	53	8	12.7	3	17.2
Kilcoyne Lanae(60)	CSMP0039	Steele	Straight R @ CSAH-31 (SW 43rd Ave)	3/31 - 10/6	52	36	60	15	21.7	0	16.8
Kilcoyne Lanae(60)	CSMP1586	Steele	Straight R @ SW 32nd Ave, 1 mi N of Hope, MN	3/31 - 10/6	51	36	60	15	21.7	0	15.3
Johnson Bruce R.(100)	CSMP0665	Goodhue	Pine Creek T112N R017W Sec. 5	4/19 - 10/23	100	100	100	8	20.5	1	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature



**Cannon River Watershed (Hydrologic Unit Code - HUC -07040002)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Hetletvedt Marcia(60)	CSMP0505	Rice	Cannon River @ Hulet Ave., Faribault	4/6 - 10/22	54	22	60	29	17.0	8	17.4
Helgeson Rodney R.(60)	CSMP0182	Rice	Rice Creek @Decker Ave.	3/20 - 10/26	36	6	60	24	23.5	4	14.1
Heimerl Ty & Joe(60)	CSMP0669	Le Sueur	Cannon River at LeSueur Co 12 Bridge	6/5 - 10/3	50	45	54	18	7.3	5	
Ganske Eugene(60)	CSMP0506	Goodhue	Cannon River @ Cannon Falls Park (9th St)	4/1 - 10/2	51	23	60	27	15.3	7	17.3
Fetterly Richard(60)	CSMP0296	Rice	Rush Creek	6/7 - 10/6	54	17	60	9	11.3	1	17.3
Fetterly Richard(60)	CSMP0070	Rice	Straight River	6/7 - 10/6	44	10	60	9	11.3	1	20.1
Dalton Dick(60)	CSMP0611	Goodhue	Little Cannon River, T112 R18W Sec. 24	3/20 - 10/15	58	30	60	27	21.9	5	
Currell David(60)	CSMP1416	Steele	Turtle Ck @ CSAH-45, 3 mi S of Owatonna	3/20 - 10/15	58	36	60	18	22.2	10	13.2
Condon Bonnie(60)	CSMP1123	Waseca	Crane Creek at CSAH 18	3/23 - 10/24	44	31	60	8	13.5	7	17.2
Butler Chuck(60)	CSMP0340	Goodhue	Cannon River @ abandoned road, 5 mi NW of Red Wing	3/15 - 10/25	39	16	60	5	20.5	1	16.6
Baldini David(60)	CSMP0503	Steele	Judicial Ditch 1 @ CSAH 18	4/4 - 10/15	28	19	36	26	14.0	12	

**Mississippi River - Winona Watershed (Hydrologic Unit Code - HUC -07040003)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Worthley Jim(60)	CSMP0365	Winona	Speltz Ck @ Speltz Dr (Twp Rd 654) in Rollingstone	4/1 - 10/29	43	43	43	1	24.8	0	20.0
Worthley Jim(100)	CSMP0365	Winona	Speltz Ck @ Speltz Dr (Twp Rd 654) in Rollingstone	4/1 - 10/29	55	55	55	1	24.8	0	20.0
Worthley Jim(100)	CSMP1400	Winona	Unnamed trib to Speltz Ck 1.5 mi NW of Rollingston	4/1 - 10/29	66	66	66	1	24.8	0	15.6
Worthley Jim(100)	CSMP1401	Winona	Speltz Ck @ DWNSTRM side of CR-25, T108N R9W S36	4/1 - 10/29	86	86	86	1	24.8	0	20.0
Worthley Jim(100)	CSMP1402	Winona	Speltz Ck @ Twp Rd 22, .5 mi NW of Rollingstone	4/1 - 10/29	50	50	50	1	24.8	0	20.0

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Mississippi River - Winona Watershed (Hydrologic Unit Code - HUC -07040003)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wehlage Robyn(100)	CSMP1635	Winona	Garvin Bk @ Broadway St culvert in Stockton, MN	4/1 - 10/14	99	95	100	18	20.6	2	15.4
VanNorman Willis(60)	CSMP0451	Olmsted	Mid Fork Whitewater R 1/2 mi N of CR-152	3/8 - 10/30	54	24	60	14	24.2	6	12.6
Palmquist Dave(60)	CSMP0446	Winona	Mid Fork Whitewater R E of MN-74 @ State Park	4/13 - 10/12	56	51	60	3	3.7	8	14.6
Palmquist Dave(100)	CSMP0446	Winona	Mid Fork Whitewater R E of MN-74 @ State Park	4/13 - 10/12	98	61	100	20	3.7	8	14.6
Nelson Eric(100)	CSMP1008	Winona	E Burns Valley Creek (107N/R7W/S35) @ CSAH 105	4/18 - 9/5	67	41	100	14		2	16.9
Kosel Chuck(60)	CSMP1033	Winona	Garvin Bk @ T107N/R8W/S11 upst of US-61 in MN City	4/24 - 10/31	52	35	60	27	19.7	1	
Kolbert Donald E(60)	CSMP1540	Wabasha	East Indian Ck 6 mi SE Of Kellog	3/28 - 10/10	52	10	60	27		9	15.3
Johnson Adam(100)	CSMP1633	Winona	Garvin Bk NW of E St in Stockton, MN	3/1 - 10/31	99	73	100	31	23.6	6	14.4
Harmes Sheila(60)	CSMP1021	Winona	Pleasant Valley Ck @ Holler Hill Rd T106N/R7W/S1	4/27 - 10/14	34	34	34	1		3	15.3
Harmes Sheila(60)	CSMP1024	Winona	Pleasant Valley Ck @ Clinton Dr N, T106N/R7W/S12	4/27 - 10/14	32	32	32	1		3	16.1
Harmes Sheila(100)	CSMP1024	Winona	Pleasant Valley Ck @ Clinton Dr N, T106N/R7W/S12	4/27 - 10/14	89	37	100	8		3	16.1
Harmes Sheila(100)	CSMP1021	Winona	Pleasant Valley Ck @ Holler Hill Rd T106N/R7W/S1	4/27 - 10/14	86	34	100	8		3	15.3
Gibbs Lisa(60)	CSMP1634	Winona	Garvin BK @ CR-23 in Stockton, MN	3/23 - 10/25	35	27	43	3	24.9	8	
Gibbs Lisa(60)	CSMP0278	Winona	Stockton Valley Creek	3/23 - 10/25	39	32	49	4	24.9	7	
Gibbs Lisa(100)	CSMP1634	Winona	Garvin BK @ CR-23 in Stockton, MN	3/23 - 10/25	99	78	100	33	24.9	8	
Gibbs Lisa(100)	CSMP0278	Winona	Stockton Valley Creek	3/23 - 10/25	94	45	100	35	24.9	7	
Durkin Bill(60)	CSMP0437	Winona	Beaver Creek, "MN-74"	4/18 - 11/25	30	30	30	1	18.8	11	13.3
Durkin Bill(60)	CSMP0438	Winona	Whitewater River, "CSAH-30"	4/18 - 11/25	21	18	23	2	18.8	11	14.2

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Mississippi River - Winona Watershed (Hydrologic Unit Code - HUC -07040003)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Durkin Bill(100)	CSMP0438	Winona	Whitewater River, "CSAH-30"	4/18 - 11/25	80	28	98	27	18.8	11	14.2
Durkin Bill(100)	CSMP0437	Winona	Beaver Creek, "MN-74"	4/18 - 11/25	96	28	100	28	18.8	11	13.3
Durkin Bill(100)	CSMP0862	Winona	Beaver Ck off Whitewater Twp Rd 1	4/18 - 11/25	99	74	100	27	18.8	11	12.7
Clark Jim(60)	CSMP0371	Winona	Gilmore Creek	4/1 - 10/5	59	45	60	21	17.6	1	14.1
Chick-Sr. Paul(100)	CSMP0447	Olmsted	No. Fork Whitewater River off 75TH St NE	5/1 - 10/31	92	57	100	10	16.7	4	
Carroll Justin(100)	CSMP1655	Winona	E Burns Valley CK @ E Burns Va Rd, 3.2 mi S Winona	7/1 - 10/7	97	73	100	9	8.3	2	
Carroll Justin(100)	CSMP1654	Winona	E Burns Valley CK @ E Burns Va Rd, 4.6 mi S Winona	7/1 - 10/7	97	78	100	9	8.3	2	
Bumann Roberta(100)	CSMP0642	Winona	Pleasant Valley Creek	3/24 - 9/27	65	6	100	10	17.7	7	11.1

**Zumbro River Watershed (Hydrologic Unit Code - HUC -07040004)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Yaeger Ruthann(60)	CSMP1431	Olmsted	Silver CK @ Silver Ck Rd NE, T107N R13W S32	3/12 - 10/19	43	4	60	28	17.9	3	
Yaeger Ruthann(60)	CSMP1430	Olmsted	Silver CK @ CR-11 underpass, T107N R13W S27	3/12 - 10/19	46	15	60	28	17.9	3	
Weiss John(60)	CSMP0680	Olmsted	Middle Fork So. Branch Zumbro River in Oxbow Park	4/14 - 10/24	53	11	60	25	24.7	14	17.4
Weiss John(60)	CSMP1440	Olmsted	Mid FK S BR Zumbro R @ CSAH-14 in Genoa, MN	4/14 - 10/24	52	11	60	25	24.7	16	16.6
Weiss John(100)	CSMP0680	Olmsted	Middle Fork So. Branch Zumbro River in Oxbow Park	4/14 - 10/24	80	29	100	25	24.7	14	17.4
Weiss John(100)	CSMP1440	Olmsted	Mid FK S BR Zumbro R @ CSAH-14 in Genoa, MN	4/14 - 10/24	72	25	100	25	24.7	16	16.6
Walding Paul(60)	CSMP1519	Olmsted	Cascade Ck in Rochester nr US-14/US-52 cloverleaf	3/9 - 10/2	32	13	44	26	9.4	6	16.9
Trelstad Carol(60)	CSMP1059	Goodhue	Zumbro R, M Fk, N Br @ 518th St NE of W Concord	4/12 - 10/21	58	45	60	7	18.1	1	13.5

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Zumbro River Watershed (Hydrologic Unit Code - HUC -07040004)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Thompson Paul & Greg(60)	CSMP0049	Olmsted	Cascade Creek	4/4 - 10/13	39	14	60	22	18.3	4	16.9
Thompson Paul & Greg(100)	CSMP0049	Olmsted	Cascade Creek	4/4 - 10/13	43	17	81	22	18.3	4	16.9
Thomforde Sandra(60)	CSMP1396	Goodhue	Zumbro R, N FK, DWNSTRM of trib, T110N R16W S25	4/7 - 10/24	52	16	60	21	18.9	15	
Steinfadt Craig & Miranda(60)	CSMP1470	Dodge	S FK Zumbro R 3 mi NE of Hayfield, T105N R16W S6	4/1 - 10/7	42	0	60	7	8.7	0	11.9
Snyder Janet(60)	CSMP1013	Olmsted	So. Fork Zumbro R @ 75th St. NW (CSAH 14)	5/1 - 10/10	47	9	60	38	17.4	19	20.6
Smith Bob & Elle(60)	CSMP0235	Dodge	Middle Fork Zumbro River	4/18 - 10/9	51	28	60	9		4	
Shulman Mike(60)	CSMP1046	Olmsted	Zumbro River off CR-68 in Hammond	3/22 - 9/24	59	44	60	27	14.5	1	18.3
Sexton Ms. Mike(60)	CSMP1720	Wabasha	Long Creek 3 mi NE of Millville	7/13 - 8/20	52	33	60	11	5.8	8	
Sexton Ms. Mike(60)	CSMP1722	Wabasha	Middle Creek 4 mi NE of Millville	7/13 - 8/20	60	59	60	11	5.8	7	
Sexton Ms. Mike(60)	CSMP1721	Wabasha	Spring Creek @ CSAH-11, 4.6 NE of Millville	7/13 - 8/20	49	8	60	11	5.8	8	
Schrandt Dean(60)	CSMP0238	Dodge	So. Branch Middle Fork Zumbro River @ 160th Ave.	4/5 - 9/27	35	12	58	10	19.1	3	
Schrandt Dean(60)	CSMP0239	Dodge	So. Branch Middle Fork Zumbro River @ 170th Ave.	4/5 - 9/27	35	11	54	10	19.1	3	
Schrandt Dean(60)	CSMP0133	Dodge	Dodge Center Creek, "605th St."	4/5 - 9/27	50	21	60	10	19.1	3	
Schrandt Dean(60)	CSMP0236	Dodge	So. Branch Middle Fork Zumbro River @ 142nd Ave.	4/5 - 9/27	54	42	60	10	19.1	3	
Schrandt Dean(60)	CSMP0241	Dodge	So. Branch Middle Fork Zumbro River @ 195th Ave.	4/5 - 9/27	37	12	55	10	19.1	3	
Schrandt Dean(60)	CSMP0240	Dodge	So. Branch Middle Fork Zumbro River @ 185th Ave.	4/5 - 9/27	36	9	55	10	19.1	3	
Schrandt Dean(60)	CSMP0237	Dodge	So. Branch Middle Fork Zumbro River @ 150th Ave.	4/5 - 9/27	54	42	60	10	19.1	3	
Schrandt Dean(60)	CSMP0373	Dodge	So. Branch Middle Fork Zumbro River @ 272 Ave	4/4 - 9/27	49	21	60	10	19.6	3	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Zumbro River Watershed (Hydrologic Unit Code - HUC -07040004)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Schmoll Bruce(60)	CSMP0135	Dodge	Dodge Center Creek	3/22 - 10/6	56	35	60	38	20.3	22	14.6
Pahl Harlen & Vernetta(60)	CSMP1200	Goodhue	N Br Mid Fk Zumbro R @ Douglas Tr RR Br in Pine Is	2/11 - 11/25	50	13	60	5	25.2	2	11.3
Oetliker Peter(60)	CSMP0318	Olmsted	Silver Creek, 11th St. Bridge	4/5 - 10/31	56	31	60	29	15.7	8	
Norstad Gary(60)	CSMP1717	Dodge	Dodge Center CK @ 160th St 3.5 mi SW of Dodge Ctr	4/17 - 10/6	45	7	58	7	19.4	4	19.6
Nigon Bernard(60)	CSMP0266	Olmsted	Cascade Creek	4/6 - 10/4	56	6	60	51	18.4	30	
Ness Andy(60)	CSMP0804	Dodge	Salem Ck at 260th Ave	4/18 - 10/13	53	3	60	68	17.5	44	14.5
Moran Jim(100)	CSMP1575	Olmsted	Bear Ck @ CSAH-19, 6 mi W of Eyota, T106N R13W S14	4/15 - 10/15	59	36	100	15	20.7	4	
Moenning Paul & Cathy(60)	CSMP0692	Dodge	Salem Creek 4 Miles N of Hayfield	4/26 - 11/12	58	55	60	2	20.8	0	12.0
Moenning Paul & Cathy(60)	CSMP0690	Dodge	Salem Creek 210th Ave 1/2 mi N of 690th St	4/26 - 10/19	60	60	60	2	20.8	0	14.2
Moenning Paul & Cathy(100)	CSMP0691	Dodge	Salem Creek 200th Ave 1/8 mi N of 690th St	4/26 - 11/12	58	54	61	2	20.8	0	12.8
Meier Erin(60)	CSMP1087	Dodge	Salem Ck 800 ft dnst of CSAH-15, W of Salem Corner	3/31 - 10/3	59	52	60	21	16.5	9	
Marquardt Vic(60)	CSMP1061	Dodge	Henslin Ck downstream of 180th Ave SW of Dodge Ctr	4/18 - 10/5	44	15	60	4	21.9	2	13.4
Lermon Phil(60)	CSMP1593	Olmsted	Cascade Ck @ 10th St. SW, 1.5 mi S of Byron	5/20 - 9/27	47	11	60	19	13.0	5	
Lermon Jim(60)	CSMP1065	Dodge	Zumbro R, M Fk @ 237th Ave, N of Mantorville	4/4 - 9/5	49	4	60	27	13.9	6	16.1
Lermon Jim(60)	CSMP1066	Dodge	Milliken Ck .2 mi SE of 550th St, N of Mantorville	4/4 - 9/5	49	5	60	27	13.9	7	16.1
Klocke Duane(60)	CSMP1719	Dodge	Cedar R @ CSAH-5, 3.5 mi W of Hayfield	4/1 - 10/15	31	20	60	5	20.2	2	18.9
Kleinwort Dennis E.(60)	CSMP1407	Olmsted	South Zumbro River @ CR-126, 13 mi SW of Rochester	4/27 - 10/7	32	0	60	7	19.0	6	
Hower Don(60)	CSMP1062	Dodge	Trib to Salem Ck, .1 mi dnst of CR-8 SE of Kasson	5/11 - 10/4	57	35	60	17	14.2	2	18.2

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Zumbro River Watershed (Hydrologic Unit Code - HUC -07040004)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Hoffman Alan & Judy(60)	CSMP0045	Olmsted	Zumbro River	5/9 - 10/31	48	28	60	6	15.2	1	
Heser Don(60)	CSMP0419	Dodge	Milliken Creek	4/19 - 9/22	56	28	60	20	14.6	3	19.5
Henely Allan(60)	CSMP1421	Olmsted	Willow Ck @ 40th St SW, Rochester, T106N/R14W/S23	3/26 - 8/19	58	44	60	13	17.8	3	11.7
Gregor Nathan(100)	CSMP0052	Olmsted	So. Fork Zumbro River	3/25 - 10/22	77	46	98	16	23.2	3	
Gordon John(60)	CSMP1327	Olmsted	Bear Ck, above lk, T106N/R12W/S18 (Olm Cty site 6)	6/17 - 10/9	60	60	60	6		2	14.1
Gordon John(60)	CSMP1326	Olmsted	Bear Ck, below dam, T106N/R13W/S13 (Olm Cty site5)	6/17 - 10/9	52	43	60	5		2	15.0
Gordon John(60)	CSMP1231	Olmsted	Unn Stream (Bear Ck) T106N/R12W/S7 (OlmCty site#1)	7/17 - 10/9	60	60	60	5		1	12.8
Feirer Matt(60)	CSMP0114	Olmsted	So. Branch Zumbro River	4/1 - 10/3	51	14	60	17	16.0	11	
Dunnette Joel(60)	CSMP1542	Olmsted	Salem Ck @ CSAH-3, .5 mi S of Salem Corners, MN	3/26 - 10/7	55	2	60	32	24.1	7	
Dunnette Joel(60)	CSMP1543	Olmsted	Cascade Ck @ CSAH-3, 1 mi N of Salem Corners, MN	3/26 - 10/7	53	5	60	32	24.1	7	
Deboef Jelle & Marlene(60)	CSMP1433	Goodhue	Dry Run Ck @ 150th Ave T109N/R16W/S15	3/1 - 10/24	58	35	60	44	18.0	17	
Colbert John(60)	CSMP1419	Olmsted	Mid Fk So Br Zumbro R @ CR-105, 3 mi N of Byron	5/2 - 10/31	50	3	60	24		12	17.1
Chesney Martin(60)	CSMP1468	Dodge	Harkcom CK 4.5 mi NE of Mantorville T108N R16W S26	3/23 - 10/6	56	42	60	14	17.7	0	19.3
Burkhardt's The(60)	CSMP1692	Olmsted	Mid Fk Zumbro R @ New Haven RD NW in Pine Island	4/11 - 6/8	43	31	59	3		6	
Burkhardt's The(100)	CSMP1692	Olmsted	Mid Fk Zumbro R @ New Haven RD NW in Pine Island	4/11 - 6/8	77	60	100	6		6	
Borg Bruce(60)	CSMP1232	Olmsted	Unn Stream (Bear Ck) @ CSAH 23, 4.75 mi W of Eyota	3/24 - 10/9	60	59	60	4	19.9	1	
Beckman Sherry(60)	CSMP1032	Goodhue	N Fk Zumbro R @ CR4 1.5 Mi E of Zumbrota	3/1 - 10/15	56	19	60	26	13.8	1	14.0
Allen Kenneth(60)	CSMP1019	Olmsted	S Fk Zumbro R @ 7th St NE in Rochester	4/1 - 10/9	34	9	60	27	17.3	12	16.0

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature



**Zumbro River Watershed (Hydrologic Unit Code - HUC -07040004)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Allen Kenneth(60)	CSMP0003	Olmsted	Bear Creek upstream of US HWY 14	4/1 - 10/9	43	18	60	27	17.3	11	13.6
.Thompson Bill(60)	CSMP0129	Dodge	So. Branch Middle Fork Zumbro River	3/21 - 11/26	50	5	60	31	22.8	17	9.7
.Porcher Eric(60)	CSMP0512	Olmsted	Willow Creek @ MN-63	3/16 - 10/6	50	7	60	34	20.7	5	
.Porcher Eric(60)	CSMP0343	Olmsted	Unnamed trib. To Bear Creek	3/16 - 10/5	40	5	60	31	17.5	6	
.Porcher Eric(60)	CSMP0344	Olmsted	Bear Creek	3/16 - 10/5	54	16	60	33	17.5	6	

**Root River Watershed (Hydrologic Unit Code - HUC -07040008)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Taylor Stephen(60)	CSMP1236	Winona	Money Cr	4/10 - 10/19	47	45	48	2	20.1	1	14.3
Taylor Stephen(60)	CSMP1238	Winona	Corey Ck @ CSAH 17, Winona County, MN	4/15 - 10/16	50	43	56	3	20.1	3	15.4
Taylor Stephen(100)	CSMP1238	Winona	Corey Ck @ CSAH 17, Winona County, MN	4/15 - 10/16	91	62	100	14	20.1	3	15.4
Taylor Stephen(100)	CSMP1236	Winona	Money Cr	4/10 - 10/19	88	58	100	13	20.1	1	14.3
Roessler Janene(60)	CSMP1420	Fillmore	Watson Ck, 3 mi NE of Preston, MN	5/1 - 10/3	50	0	60	23	13.2	6	
Reisetter Mark(100)	CSMP1399	Winona	Unnamed Ck (Coolridge Ck) @ CR-2, T105N R9W S26	3/24 - 10/10	98	93	100	9	20.3	3	10.7
Petersen Ronald(60)	CSMP1228	Fillmore	Root River 0.1 mi S of Rushford @ MN-16/43	4/9 - 10/30	33	4	47	27	22.5	8	14.6
Paulson LaVerne C.(60)	CSMP0256	Fillmore	So. Branch Root River @ CSAH 17 in Preston, MN	3/5 - 10/20	51	11	60	27	15.5	5	14.2
Olson Ronald(60)	CSMP0649	Olmsted	N Br Root River 2 mi NE of Stewartville	4/8 - 10/3	38	5	59	9	18.2	3	17.3
Niemeyer Kelvin & Linda(60)	CSMP1240	Fillmore	Spring Valley Ck @ CSAH-1, Fillmore County, MN	4/6 - 10/30	52	13	60	27	34.1	7	13.0
Netherton Warren(60)	CSMP0011	Fillmore	So. Branch Root River, Foot BR	4/19 - 10/2	40	4	60	4	13.8	24	17.5

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Root River Watershed (Hydrologic Unit Code - HUC -07040008)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Netherton Warren(100)	CSMP0011	Fillmore	So. Branch Root River, Foot BR	4/19 - 10/2	89	35	100	61	13.8	24	17.5
Nelson Irene(60)	CSMP0013	Fillmore	So. Branch Root River	3/20 - 10/30	44	22	60	10	28.4	8	17.8
Meighen Pat(60)	CSMP0014	Fillmore	So. Branch Root River	4/1 - 8/25	50	2	60	24	17.8	15	16.5
Krahn Karol(60)	CSMP0257	Fillmore	So. Branch Root River	3/22 - 10/25	41	10	60	20	20.2	8	
Krahn Karol(60)	CSMP0575	Mower	So. Branch Root River @ CSAH 14	3/22 - 10/25	47	8	60	20	20.2	8	
Krahn Karol(60)	CSMP0036	Mower	Mower Co. Judicial Ditch 1	3/22 - 10/25	52	11	60	21	20.2	8	
Kerl Scott(60)	CSMP1277	Fillmore	Root R @ Whalan Bridge (Main St), Whalan, MN	4/4 - 10/9	50	5	60	21	8.4	7	15.8
House Roy(60)	CSMP1576	Fillmore	Mid BR Root R 5.5 mi SE Chatfield T140N R10W S16	5/1 - 10/25	52	25	60	13	7.5	3	19.6
Hoover Bob(60)	CSMP1208	Olmsted	Carey Ck 1 mi SW of Stewartville	4/6 - 10/3	57	26	60	24	31.5	8	13.1
Gossman Timothy M.(60)	CSMP1427	Fillmore	Bear (Lost) Ck, T104/R12/S16, 6 mi SW of Chatfield	4/12 - 10/27	48	4	60	63	26.9	36	14.0
Erickson Stephen(60)	CSMP0525	Fillmore	Gribben Creek (Holt twp, sec 21)	3/25 - 10/31	58	25	60	27	19.8	16	11.6

**Upper Iowa River Watershed (Hydrologic Unit Code - HUC -07060002)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Stenhoff Roger(60)	CSMP1710	Houston	Bee Ck 4 mi SE of Spring Grove, MN	6/3 - 10/30	25	10	50	19	19.6	5	
Manahan Gail(60)	CSMP1583	Mower	Little Iowa R @ 787th Ave in LK Louise ST Park	4/12 - 10/19	60	53	60	17	18.7	4	

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

## Minnesota River Basin

### Minnesota River - Headwaters Watershed (Hydrologic Unit Code - HUC -07020001)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Ulrich David(60)	CSMP0596	Lac qui Parle	N. Fork Yellowbank River	4/20 - 10/18	56	42	60	14	17.2	3	

### Pomme de Terre River Watershed (Hydrologic Unit Code - HUC -07020002)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wojtalewicz Norma(60)	CSMP1693	Swift	Pomme de Terre R @ Veum St. walking BR in Appleton	4/1 - 10/29	26	15	55	24	15.9	1	
McNally Shaun(60)	CSMP1675	Stevens	Muddy Ck AT 490TH AVE, 3 MI SW OF MORRIS	4/1 - 10/5	17	8	60	15	13.2	7	15.5
Koosmann Berthold(60)	CSMP0370	Swift	Pomme de Terre River	4/22 - 10/6	23	15	35	21	16.2	13	
Erickson Gerald & Mary(60)	CSMP0369	Ottertail	Pomme de Terre River	4/15 - 10/31	58	52	60	11	20.5	1	16.0
Dally Don(60)	CSMP0606	Grant	Pomme de Terre River @ Twp. Rd. T128N R41W Sec. 29	4/30 - 10/31	42	34	45	4	15.4	2	15.3
Dally Don(60)	CSMP0604	Grant	Pomme de Terre River @ CR-51	4/30 - 10/31	57	48	60	4	15.4	2	15.3
Dally Don(60)	CSMP0605	Grant	Pomme de Terre River @ CR-47	4/30 - 10/31	44	35	48	4	15.4	2	15.6
Dally Don(60)	CSMP0603	Grant	Pelican Creek, T130N R41W Sec. 16	4/30 - 10/31	30	24	45	4	15.4	2	15.0
Dally Don(60)	CSMP0710	Grant	Pomme de Terre River @ T127 R41 S18	4/30 - 10/31	40	35	44	4	15.4	2	15.3

### Lac Qui Parle River Watershed (Hydrologic Unit Code - HUC -07020003)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wymar Paul(60)	CSMP0780	Lac Qui Parle	Tenmile Ck at 220th St T117N/R42W/S1	3/10 - 10/30	55	22	60	17	22.3	5	
Welker Robert(60)	CSMP0592	Yellow Medicine	Canby Creek @ MN-68	4/19 - 10/15	60	60	60	15	15.5	2	14.7
Welker Robert(60)	CSMP0591	Yellow Medicine	Canby Ck @ Lake Sylvan Park	4/19 - 10/15	49	15	60	15	15.5	2	14.5
Ulrich David(60)	CSMP1084	Lac Qui Parle	Lac Qui Parle R @ US-212 1 mi E of Dawson	4/20 - 10/15	24	13	36	11	17.2	3	

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Lac Qui Parle River Watershed (Hydrologic Unit Code - HUC -07020003)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Peterson Deb & George(60)	CSMP0476	Lincoln	Laq qui Parle River	3/27 - 10/21	52	33	60	6	10.8	3	
Johnson Dustin & Jeff(60)	CSMP0467	Lac qui Parle	County Ditch 34	3/1 - 10/16	48	24	60	17	19.7	5	
Jeremiason Jerry(60)	CSMP1075	Yellow Medicine	Lazarus Ck @ 180th St, 2 mi NW of Canby	4/2 - 10/15	57	23	60	23		22	
Hendrickson Burton(60)	CSMP0470	Lac qui Parle	Cobb Creek	3/24 - 10/17	42	11	60	13		7	
Eilers Eugene(60)	CSMP0589	Yellow Medicine	Canby Creek, T114N R45W Sec. 2	3/1 - 10/11	60	58	60	7	14.5	1	
Craigmile Dave(60)	CSMP0631	Lac qui Parle	Co. Ditch 34	4/6 - 10/7	59	47	60	26		27	
Aabye Frank(60)	CSMP0595	Lac qui Parle	Lac qui Parle River, T117N R43W Sec. 21	4/10 - 10/6	45	30	60	13	13.7	3	

**Minnesota River - Yellow Medicine River Watershed (Hydrologic Unit Code - HUC -07020004)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Slagter Perry(60)	CSMP0761	Kandiyohi	Trib to Chetomba Creek NE of Prinsburg	4/12 - 11/2	57	41	60	24	17.5	2	
Simons Glen(60)	CSMP0401	Kandiyohi	Halvorson Slough inlet	3/1 - 10/30	21	10	39	3	23.9	0	
Schafer William(60)	CSMP0985	Renville	W Fk Beaver Ck @ 270TH St T116N/R36W/S35	3/23 - 10/22	53	26	60	37	21.1	9	
Moon Matt(60)	CSMP1687	Lyon	S Br Yellow Medicine R @ CSAH-3 in Minneota, MN	6/17 - 10/9	37	18	60	22	11.4	14	
Lewisson Gerry(60)	CSMP0758	Chippewa	Minnesota River @ MN Falls, T115N R39W Sec. 12	5/2 - 10/15	27	21	34	11	14.2	2	
Korstad Donald(60)	CSMP0629	Renville	Hawk Creek, T115N R38W Sec. 5	3/21 - 10/18	50	20	60	31		18	
Heffelfinger Royce(60)	CSMP0983	Redwood	Minnesota R, T113N/R35W/S19, N of Redwood Falls	3/22 - 10/22	23	16	40	25	20.8	11	
Froland Brad(60)	CSMP0984	Renville	Hawk Creek @ 822nd Ave	4/1 - 9/30	45	15	60	26	13.0	2	
Dinesen Terri(60)	CSMP0627	Renville	Hawk Creek	4/10 - 8/7	45	14	58	14		4	

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Minnesota River - Yellow Medicine River Watershed (Hydrologic Unit Code - HUC -07020004)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Bratsch Lowell(60)	CSMP0625	Renville	West Fork Beaver Creek	4/1 - 10/28	34	18	42	14	20.6	8	

**Chippewa River Watershed (Hydrologic Unit Code - HUC -07020005)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wymar Paul(60)	CSMP0502	Chippewa	County Ditch 21	3/10 - 10/30	53	5	60	16	22.3	2	
Welle Jerry(60)	CSMP1528	Douglas	Chippewa R @ Lk Jennie Rd, 5 mi S of Evansville	4/21 - 10/14	44	19	60	21	12.5	9	
Welle Jerry(100)	CSMP1528	Douglas	Chippewa R @ Lk Jennie Rd, 5 mi S of Evansville	4/21 - 10/14	94	83	100	5	12.5	9	
Sharpe Andrew(60)	CSMP1659	Pope	Little Chippewa R @ CSAH 1 (4.5 mi SE of Cyrus)	5/2 - 9/21	60	60	60	10	6.9	2	
Sharpe Andrew(60)	CSMP1660	Pope	Chippewa R @ 210th St (3 mi SE of Cyrus)	5/2 - 9/21	26	9	60	10	6.9	2	
Schmidt Joel(60)	CSMP1443	Kandiyohi	Shakopee Cr @ 120th St NW, 1.5 mi SW of Swan Lake	3/24 - 9/30	44	27	52	7	12.5	2	
Schmidt Joel(100)	CSMP1443	Kandiyohi	Shakopee Cr @ 120th St NW, 1.5 mi SW of Swan Lake	3/24 - 9/30	78	32	99	26	12.5	2	
Reynolds Bob(100)	CSMP0486	Douglas	Chippewa River @ Little Chippewa Lk outlet	4/30 - 8/20	100	100	100	19		19	
Reynolds Bob(100)	CSMP0497	Douglas	Devils Lk outlet	4/30 - 8/20	100	100	100	19		19	
Reynolds Bob(100)	CSMP0496	Douglas	Chippewa Lk outlet @ CR-7	4/30 - 8/20	100	95	100	19		19	
Nelson Deb(60)	CSMP0492	Kandiyohi	Shakopee Creek @ CR-29	3/22 - 11/23	52	19	60	12	19.4	6	
Mulvaney Bruce & Barb(60)	CSMP0490	Pope	Chippewa River @ CR-19	4/1 - 10/30	60	60	60	3	16.4	3	
Mulvaney Bruce & Barb(100)	CSMP0491	Pope	Unnamed trib to E BR Chippewa R Gilchrist Lk Inlet	4/1 - 10/30	90	69	100	5	16.4	3	
Mulvaney Bruce & Barb(100)	CSMP0490	Pope	Chippewa River @ CR-19	4/1 - 10/30	100	100	100	6	16.4	3	
Mahoney Tom(60)	CSMP0993	Pope	Lake Emily outlet at 375th Ave (TWM2)	4/19 - 9/29	17	6	60	40	12.1	28	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Chippewa River Watershed (Hydrologic Unit Code - HUC -07020005)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Mahoney Tom(60)	CSMP0994	Pope	CHIPPEWA R AT CSAH-1, 6 MI NE OF HANCOCK (TWM1)	4/19 - 9/29	30	9	60	39	12.1	25	
Gronseth Orvin(60)	CSMP0775	Swift	Mud Ck at CSAH 33, Kerkhoven Twp	4/8 - 10/2	40	24	56	11	7.9	4	
Gronseth Orvin(60)	CSMP0776	Swift	Spring Ck at Sec 17, Kerhoven Twp	4/8 - 10/2	58	54	60	9	7.9	4	
Conboy Lindsey(60)	CSMP1716	Chippewa	Chippewa R @ CSAH-13, .5 mi. NE of Watson	6/27 - 10/6	23	18	38	31		21	22.6

**Redwood River Watershed (Hydrologic Unit Code - HUC -07020006)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Swedzinski Daniel(60)	CSMP0357	Redwood	Clear Creek	3/23 - 10/15	60	60	60	24	17.5	12	
Rolling Joseph(60)	CSMP0291	Lincoln	Lake Benton outlet	4/6 - 10/7	46	8	60	18	14.0	8	
Flock Katherine(60)	CSMP1216	Lyon	Threemile Ck @ 230th St, 3 mi NE of Ghent, MN	3/19 - 10/27	44	10	60	31	18.2	21	

**Minnesota River - Mankato Watershed (Hydrologic Unit Code - HUC -07020007)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wolf Michael R.(60)	CSMP1209	Nicollet	Eightmile Ck @ CSAH-5 (Fort Rd), NW of New Ulm	4/18 - 10/17	57	45	60	23	17.6	4	
Runck Richard(60)	CSMP1613	Nicollet	Little Rock CK (JD-31) @ CSAH-21	3/20 - 11/1	41	6	60	15	19.9	14	
Runck Richard(60)	CSMP1383	Blue Earth	Little Cottonwood R @ Apple Rd, T109/R29W/S17	3/20 - 11/1	34	4	60	27	19.9	16	
Runck Richard(60)	CSMP1612	Brown	MN River @ MN-4, 6.5 mi S of Fairfax, MN	3/20 - 11/5	13	6	22	24	19.9	12	
Runck Richard(60)	CSMP1614	Nicollet	Fritsche CK @ CSAH-21, 2 mi N of New Ulm, MN	3/20 - 11/1	44	4	60	21	19.9	14	
Runck Richard(60)	CSMP1615	Blue Earth	MN River @ "Courtland Cutoff", 4 mi SE of New Ulm	3/20 - 11/1	12	8	20	22	19.9	14	
Runck Richard(60)	CSMP1610	Brown	MN River @ Brown CSAH-13	3/20 - 11/3	11	4	22	34	19.9	17	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Minnesota River - Mankato Watershed (Hydrologic Unit Code - HUC -07020007)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Mettler Duane(60)	CSMP0151	Blue Earth	tile outlet to Duck Lake (12" tile)	3/25 - 8/1	60	60	60	8		5	18.9
Mettler Duane(60)	CSMP0150	Blue Earth	unnamed tributary to Duck Lake (5 foot culvert)	3/25 - 8/1	57	48	60	8		3	18.9
Kaukola Robert(60)	CSMP0148	Renville	Fort Ridgely Creek	3/9 - 10/30	56	28	60	27	23.0	3	17.2
Hollingsworth Mary(60)	CSMP0543	Blue Earth	Minneopa Creek at St. Park Entrance	3/1 - 10/31	51	20	60	26	22.1	8	
Goltz Julie(60)	CSMP1695	Nicollet	Fritsche Ck (CD-77) 3.3 mi NE of New Ulm, MN	5/2 - 10/17	53	25	60	5	19.1	3	
Gleisner Alan(60)	CSMP1218	Nicollet	Eightmile Ck @ 366th St, 2.5 mi NW of St. George	5/1 - 10/9	39	6	60	32	12.2	19	
Dwyer Joe(60)	CSMP0383	Blue Earth	unnamed tributary to Duck Lake "#3"	4/26 - 10/12	20	20	20	2	16.5	1	
Bonilla Jim(60)	CSMP0668	Nicollet	7 Mile Creek	4/10 - 10/13	60	60	60	21		10	
Anderson Shirley(60)	CSMP0661	Blue Earth	Minneopa Creek T108 R28W Sec. 31	3/20 - 10/24	43	24	60	23	14.5	5	

**Cottonwood River Watershed (Hydrologic Unit Code - HUC -07020008)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Schultz Robert(60)	CSMP0356	Redwood	Plum Creek	4/7 - 10/31	47	16	60	29	20.0	1	
Schindele James(100)	CSMP1175	Brown	Judicial Ditch 30 1 mi W of Sleepy Eye @ CR-27	4/9 - 9/26	65	17	96	22	12.5	4	19.4
Runck Richard(60)	CSMP1028	Brown	Cottonwood R at Cottonwood St in New Ulm	3/20 - 11/1	20	3	36	26	19.9	15	
Reilly Barbara(60)	CSMP1556	Brown	Cottonwood R @ CSAH-13, 1 mi SW of New Ulm	4/14 - 9/30	33	15	49	22	10.4	5	
Purves Robert(60)	CSMP1018	Redwood	Trib to Cottonwood R (JD9) @ Aspen Ave NW	6/5 - 9/30	45	36	54	3	11.7	1	
Neperman Terry(60)	CSMP1376	Redwood	Cottonwood R @ Cty Rd 61, 1 mi E of Lamberton	3/23 - 10/5	39	25	57	11	18.1	3	
Neperman Terry(60)	CSMP1214	Redwood	Highwater Creek, 1 mi SE of Lamberton	3/23 - 10/5	53	41	60	11	18.1	3	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Blue Earth River Watershed (Hydrologic Unit Code - HUC -07020009)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Worner Robert(60)	CSMP0659	Faribault	Blue Earth River, T102N R27W Sec. 18	4/11 - 10/25	28	9	55	27	25.2	6	
Turbes Jared L.(60)	CSMP1445	Faribault	Blue Earth R @ CSAH-10, 2 mi SW of Winnebago	3/8 - 10/25	21	9	35	32	22.1	6	16.7
Schiltz Mike(60)	CSMP1554	Faribault	Mid Br Blue Earth R @ 40th St, 2 mi N of Elmore	3/29 - 10/24	45	19	57	25	26.3	1	
Ristau Laurie(60)	CSMP0782	Faribault	Blue Earth R at W 14th St Bridge	4/10 - 10/30	32	12	60	24	26.1	15	
Pomije Deanna(60)	CSMP1446	Faribault	South Ck @ 330rd Ave, 4.5 mi SW of Winnebago	4/7 - 10/26	20	6	46	25		1	18.6
Nienhaus Collin(60)	CSMP1671	Faribault	Center Ck @ 165th St, 3 mi SW of Winnebago, MN	3/12 - 9/30	33	7	60	21	15.1	4	
Maertens Tom(60)	CSMP1588	Blue Earth	Blue Earth R @ Hawthorn Rd, 1 mi S of Mankato, MN	4/1 - 10/11	30	11	49	20	17.6	6	21.5
Kruger Richard(60)	CSMP0792	Blue Earth	Blue Earth R @ Co Rd 34	4/2 - 10/30	20	5	41	8	17.9	3	16.7
Goemann Alice(60)	CSMP0655	Faribault	East Br. Blue Earth River, T102 R24W Sec. 8	4/1 - 10/31	19	10	54	16	13.5	0	
Bogan Kay(60)	CSMP0660	Faribault	East Br. Blue Earth River, T102N R27W Sec. 16	4/1 - 10/4	27	9	60	24	18.9	5	
Bittinger Wilma(60)	CSMP1184	Faribault	Coon Ck T102N R27W Sec.29	4/15 - 10/8	38	9	60	12	12.5	9	
Baker Barbara(60)	CSMP0790	Faribault	JD 13 East of MN-254 T101N/R26W/S35	4/1 - 10/31	37	11	55	13	27.2	24	12.0
Baker Barbara(100)	CSMP0790	Faribault	JD 13 East of MN-254 T101N/R26W/S35	4/1 - 10/31	82	32	100	31	27.2	24	12.0
.Ganske Lee(60)	CSMP1541	Blue Earth	Blue Earth R @ MN-60 (US-169) in Mankato	3/30 - 10/18	24	10	55	20	7.6	3	

**Watonwan River Watershed (Hydrologic Unit Code - HUC -07020010)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Schwardt Bernhardt & Sharon(60)	CSMP0330	Watonwan	Willow Creek	3/15 - 10/31	55	34	60	23		9	
Penner Norman H.(60)	CSMP0327	Watonwan	Watonwan River	4/2 - 10/23	50	16	60	17		6	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature



**Watonwan River Watershed (Hydrologic Unit Code - HUC -07020010)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Kunz Nick(60)	CSMP0788	Watonwan	Watonwan R T107N/R30W/S25 'Site 2'	3/23 - 10/7	34	12	48	27	20.9	2	
Kunz Nick(60)	CSMP0789	Watonwan	Watonwan R 400 yds downstream of ditch 'Site 1'	3/23 - 10/7	33	12	50	27	20.9	2	
Dieteman Steve(60)	CSMP0267	Blue Earth	Watonwan River	4/4 - 10/25	37	18	58	13	18.4	3	14.3
Brekke Loren(60)	CSMP1053	Brown	JD5 @ 120th St, 6.7 mi W of Hanska	3/23 - 10/31	60	60	60	7	21.7	2	
Bratland Ken & Carol(60)	CSMP0375	Watonwan	So. Fork Watonwan River	4/1 - 10/24	25	8	53	15	20.3	0	
Anderson Steve(60)	CSMP1080	Watonwan	Watonwan R .2 mi S of CSAH-3 in Madelia	4/9 - 10/16	30	12	56	26	18.3	1	

**Le Sueur River Watershed (Hydrologic Unit Code - HUC -07020011)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Smothers Dwayne(60)	CSMP1538	Blue Earth	Rice Ck @ CSAH-1 (555 Ave), 7 mi SW of Mapleton	4/4 - 10/1	10	6	14	22	18.0	9	
Searle Rod(60)	CSMP1181	Waseca	Le Sueur River, Alton Twp. Sec. 25	4/27 - 10/5	33	19	60	14	13.4	14	
Pederson Jeff(60)	CSMP1276	Blue Earth	Maple R @ conf. w/ Le Sueur R, 6 mi S of Mankato	4/8 - 10/30	35	4	60	28	12.4	10	
Kruger Richard(60)	CSMP0791	Blue Earth	Cobb R at CSAH 16	4/2 - 10/30	21	8	49	11	17.9	4	19.3
Kruger Richard(60)	CSMP0793	Blue Earth	Le Sueur River @ Co Rd 90	4/2 - 10/30	20	8	32	11	17.9	4	18.5
Jackson Dave(60)	CSMP0718	Blue Earth	Maple River @ T107N, R27W, S12	3/31 - 10/26	37	5	60	40	15.6	14	
Hausenbauer Tom(60)	CSMP0149	Blue Earth	LeSueur River	4/13 - 10/14	26	6	60	15	11.9	3	
Genz Carl J.(60)	CSMP1686	Waseca	Iosco Ck @ CSAH-3, 1.2 mi SE of Elysian, MN	5/1 - 10/9	19	6	54	19	12.5	3	20.3
Downey Josh(60)	CSMP1270	Blue Earth	Maple R @ CSAH-10, .5 mi E of Good Thunder, MN	4/1 - 10/1	30	8	60	13	16.1	9	
Booker James(60)	CSMP1002	Blue Earth	Le Sueur R W of Twp Hwy 169 in Decorah Twp Sec 3	4/15 - 10/31	18	6	60	27	20.8	11	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Le Sueur River Watershed (Hydrologic Unit Code - HUC -07020011)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Armstrong W.J. (Bill)(60)	CSMP1204	Waseca	Cobb R (Big Cobb R) @ CSAH-3, 5 mi NE of MN Lake	4/23 - 10/15	34	6	54	3	14.6	2	17.0

**Lower Minnesota River Watershed (Hydrologic Unit Code - HUC -07020012)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Winterfeldt Lyle(60)	CSMP0282	McLeod	McCleod Co. Ditch 30	3/1 - 11/30	42	32	60	3	23.9	0	
Winterfeldt Lyle(60)	CSMP0281	McLeod	High Island Creek	3/1 - 11/30	46	23	60	8	23.9	2	
Winterfeldt Lyle(60)	CSMP0283	McLeod	Ditch to Baker's Lk, just N of Co 17 on private rd	3/1 - 11/30	45	30	60	4	23.9	1	
Wentworth John(60)	CSMP1102	Le Sueur	Forest Prairie (Le Sueur Ck) @ CR-117, in Le Sueur	3/23 - 10/12	48	25	60	6	16.9	1	
Sloot Harry(60)	CSMP0752	Sibley	Mid Br Rush River @ Co Rd 25 (8RS)	3/27 - 11/23	60	59	60	16		4	
Schultz Lynn(60)	CSMP1090	Le Sueur	Le Sueur Ck at Twp Hwy 44, 1.3 mi E of LeSueur	3/20 - 10/30	54	4	60	22	13.8	8	
Ruehling David(60)	CSMP0753	Sibley	Co Dtch 55 near Beatty Lake (10T)	4/2 - 9/30	42	22	50	8	15.0	0	
Prchal Brian & Anna(60)	CSMP1598	Le Sueur	Sand CK @ CSAH-28, 3.5 mi N of Montgomery, MN	4/14 - 9/30	40	18	60	8	13.6	5	24.8
Paulson John(100)	CSMP1674	Sibley	S BR Rush R @ MN-15	7/27 - 10/5	100	97	100	10	9.5	0	
Paulson John(100)	CSMP1664	Sibley	JD-1 @ MN-15	7/27 - 10/5	99	92	100	10	9.5	0	
Morris Michael(60)	CSMP1584	Scott	MN River at MN-101 boat ramp in Shakopee, MN	4/1 - 10/12	15	9	20	16	1.5	6	
Legg James(60)	CSMP1071	Le Sueur	Forest Prairie Ck 1.5 mi W of CSAH-11	3/20 - 10/31	47	27	60	33	21.4	25	15.7
Lang Leon(60)	CSMP0779	Sibley	Mid Br Rush River at 571st Ave	3/22 - 10/22	58	46	60	7	21.6	2	
Krueger Henry(60)	CSMP0799	Carver	Bevens Creek at CR 53 S of Cologne	3/20 - 10/22	47	8	60	27	22.7	2	18.4
Kile Stephen(60)	CSMP0830	Hennepin	Minnesota R @ Lyndale Ave (Sorenson Boat Landing)	5/5 - 9/30	15	8	23	21	11.9	7	21.6

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Lower Minnesota River Watershed (Hydrologic Unit Code - HUC -07020012)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Keyport Georgiann & Ted(60)	CSMP0334	Carver	Chaska Creek	5/1 - 9/30	52	41	57	14	14.0	6	
Javurek Don & Mary(60)	CSMP1689	Carver	Unnamed CK (East CK) @ Beech St. in Chaska, MN	4/3 - 10/10	51	10	60	28	20.2	2	
Helman Bob & Dodi(60)	CSMP1682	Scott	Credit R @ MN-21in Lakeville, MN	4/8 - 9/30	58	29	60	28	14.3	13	
Haas Sean(100)	CSMP0796	Scott	Sand Creek @ Rice Street in Jordan	5/16 - 9/30	90	14	100	17	13.2	3	
Green Richard(60)	CSMP1031	Hennepin	Nine Mile Ck @ Ped bridge off Southmore Dr	4/12 - 10/8	56	44	60	23	18.8	13	
Genelin MaryLynn(60)	CSMP1036	Le Sueur	Le Sueur Ck @ T111N/R25W/S27	4/14 - 10/25	55	55	55	1	20.4	0	12.8
Fox Al(60)	CSMP0748	Nicollet	CD 40 at Co Rd 1 near Lafayette (1T)	5/1 - 10/30	55	38	60	26	18.6	16	
Drenckhahn Mikala(60)	CSMP1263	Scott	Porter Ck @ CSAH-56 100 yd E of CSAH-23	3/20 - 9/30	40	7	60	25	17.2	3	18.9
Danner-Sr. Lowell(60)	CSMP0840	Dakota	Minnesota River @ Cedar Ave. Br (Hwy 77)	4/1 - 10/28	17	10	22	24	13.2	7	19.3
Creech Mary(60)	CSMP0284	McLeod	High Island Creek @ CSAH 7	4/16 - 10/9	58	20	60	25		4	
Creech Mary(60)	CSMP0286	McLeod	High Island Creek @ Co. Rd. 57	4/16 - 10/9	58	22	60	25		5	
Cook Gideon(100)	CSMP1050	Hennepin	Ninemile Ck, S Fk, at Rowland Rd in Eden Prairie	4/4 - 10/31	98	77	100	11	15.9	5	
Brasket Richard(60)	CSMP1624	Hennepin	Unn trib to Purgatory Ck @ foot br W of Stodola Rd	4/13 - 10/21	56	41	60	25	18.6	6	
Bovee Jack(60)	CSMP0774	Sibley	Rush River @ MN-93	3/1 - 10/6	22	2	60	7	21.0	4	
Bovee Jack(100)	CSMP0774	Sibley	Rush River @ MN-93	3/1 - 10/6	90	56	100	17	21.0	4	
Audus Jeff(60)	CSMP1409	Le Sueur	Minnesota R @ Cty Rd 8, 1 mi W of Le Sueur	4/6 - 10/1	18	14	22	23	14.8	2	20.2

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

## Missouri River Basin

### Lower Big Sioux River Watershed (Hydrologic Unit Code - HUC -10170203)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
NationalMonument Pipestone(60)	CSMP0619	Pipestone	Pipestone Creek, site 1	5/1 - 9/30	44	11	60	21	13.3	6	15.6
NationalMonument Pipestone(60)	CSMP0620	Pipestone	Pipestone Creek, site 2	5/1 - 9/30	22	11	60	19	13.3	5	17.4

### Rock River Watershed (Hydrologic Unit Code - HUC -10170204)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Shurr George W.(60)	CSMP1418	Rock	Kanaranzi Ck @ MN/IA border	3/21 - 10/30	27	7	60	26	19.2	6	17.8
Brummel Andrew(60)	CSMP1683	Pipestone	Rock R .5 mi SW of Edgerton, MN	3/1 - 9/30	35	17	59	18	13.4	2	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

## Rainy River Basin

### Vermilion River Watershed (Hydrologic Unit Code - HUC -09030002)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Hall John(100)	CSMP1406	St. Louis	Pelican R, 3 mi E of Orr	3/2 - 9/28	99	83	100	23	19.0	12	

### Little Fork River Watershed (Hydrologic Unit Code - HUC -09030005)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Peterson Janet A.(100)	CSMP1623	St. Louis	Dark River, 10 mi N of Buhl	4/19 - 10/11	100	100	100	26		20	

### Big Fork River Watershed (Hydrologic Unit Code - HUC -09030006)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Swanberg Bill(100)	CSMP1551	Itasca	Rice R 3.5 mi S of Bigfork, T60N/R26W/S8	5/20 - 10/16	95	74	100	5	7.4	2	15.9
Shaw Nancy(100)	CSMP0517	Itasca	Bowstring River	5/13 - 10/3	95	82	100	8	9.3	1	
4H-Club Northstar(100)	CSMP1699	Itasca	Bigfork R between canoe landing & MN-38 in Bigfork	5/2 - 9/15	94	58	100	11		0	
4H-Club Northstar(100)	CSMP1700	Itasca	Rice R @ CSAH-7 in Bigfork MN	5/2 - 8/29	98	88	100	10		1	17.2

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

## Red River of the North Basin

### Mustinka River Watershed (Hydrologic Unit Code - HUC -09020102)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Feneis John(60)	CSMP0950	Grant	Mustinka R @ CSAH-13 6 mi NE of Herman "Site 3"	3/23 - 10/6	35	8	60	12	14.0	0	
Feneis John(60)	CSMP0951	Grant	Mustinka R @ CSAH-8, 8 Mi NE of Herman "Site 4"	3/23 - 10/6	39	13	60	14	14.0	0	
Feneis John(60)	CSMP0959	Grant	Mustinka R @ Mustinka Dam NE of Herman "Bds33"	3/23 - 10/6	26	16	51	14	14.0	0	
Feneis John(60)	CSMP1222	Grant	Mustinka R @ CR-67 (340th Ave), "Site #1"	3/23 - 10/6	32	12	60	14	14.0	0	
Feneis John(60)	CSMP1271	Grant	Mustinka R @ Twp Hwy 89 (300th Ave), "Site #2"	3/23 - 10/6	18	12	28	14	14.0	0	
Feneis John(60)	CSMP1272	Grant	Mustinka R @ CR-42 (240th Ave), "Site #5"	3/23 - 10/6	48	17	60	12	14.0	0	
Feneis John(60)	CSMP1273	Grant	Unnamed stream ("Mustinka") @ CSAH-15, "Site #6"	3/23 - 10/6	47	26	60	14	14.0	0	
Feneis John(60)	CSMP0948	Grant	Mustinka R @ CSAH 9 NW of Norcross, "Site 1A"	3/23 - 10/6	30	12	53	14	14.0	0	
Feneis John(60)	CSMP1458	Grant	Mustinka R 1/8 mi S CSAH-12, 5.5 mi SW of Elbow LK	3/23 - 10/6	60	60	60	5	14.0	0	
Feneis John(60)	CSMP1459	Grant	Mustinka R @ CSAH-12, 5.5 mi SW of Elbow LK	3/23 - 10/6	48	16	60	14	14.0	0	
Feneis John(60)	CSMP1461	Grant	Mustinka R @ CSAH-1, 4 mi SW of Elbow LK	3/23 - 10/6	51	16	60	14	14.0	0	
Feneis John(60)	CSMP1274	Grant	Mustinka R @ CSAH-26, "Site #7"	3/23 - 10/6	46	15	60	14	14.0	0	
Feneis John(60)	CSMP1460	Grant	Mustinka R @ CR-44, 4.5 mi SW of Elbow LK	3/23 - 10/6	51	16	60	14	14.0	0	

### Otter Tail River Watershed (Hydrologic Unit Code - HUC -09020103)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Lee Maribeth & Andy(60)	CSMP0374	Becker	Unnamed trib. To Height of Land Lake	3/23 - 10/26	60	60	60	27	15.7	7	
Kercher Edsel(60)	CSMP0271	Becker	Little Toad Lake inlet - UPSTREAM	5/17 - 9/5	54	37	60	12	9.2	7	17.9

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Otter Tail River Watershed (Hydrologic Unit Code - HUC -09020103)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Kercher Edsel(60)	CSMP0684	Becker	Little Toad Lake Inlet - DOWNSTREAM	5/17 - 9/5	60	60	60	12	9.2	7	17.0
Gripentrog Al(60)	CSMP1611	Wilkin	Otter Tail River @ US-75, Breckenridge, MN	4/14 - 10/21	36	21	58	10		6	
Deede Lowell(100)	CSMP1503	Becker	Egg River @ Egg Lk Trl "site 3"	5/5 - 10/5	99	98	100	3		0	14.2
Deede Lowell(100)	CSMP1502	Becker	Egg River @ Flat Lake Control "site 2"	5/5 - 10/5	100	100	100	3		0	12.7
Deede Lowell(100)	CSMP1504	Becker	Otter Tail R @ CSAH-35, Round Lk outlet "site 4"	5/5 - 10/5	100	100	100	3		0	11.6
Deede Lowell(100)	CSMP1505	Becker	Otter Tail R @ Chippewa Lake inlet "site 5"	5/5 - 10/5	99	96	100	3		0	13.5
Deede Lowell(100)	CSMP1506	Becker	Otter Tail R @ Chippewa Control Structure "site 6"	5/5 - 10/5	100	100	100	3		0	13.7
Deede Lowell(100)	CSMP1507	Becker	Otter Tail R @ Co. Rd 126 "site 7"	5/5 - 10/5	100	100	100	3		0	13.9
Deede Lowell(100)	CSMP1501	Becker	Egg River @ Bruce Blvd "site 1"	5/5 - 10/5	100	100	100	3		0	12.9
Askew John(100)	CSMP1439	Otter Tail	Toad R inlet to Pine Lk, 4.5 mi NE of Perham	4/18 - 9/30	81	49	100	14	9.7	4	
Askew John(100)	CSMP1438	Otter Tail	Ottertail R to Lit Pine Lk, 2.25 mi N of Perham	4/8 - 9/30	93	71	100	14	9.7	4	
Aadland Julie(100)	CSMP1577	Otter Tail	Otter Tail R, 4.5 mi E of Elizabeth, T133N R42W S7	3/20 - 10/14	86	42	100	4	19.0	1	

**Upper Red River of the North Watershed (Hydrologic Unit Code - HUC -09020104)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Brekke Gary(60)	CSMP0007	Clay	Red River	3/5 - 10/28	9	2	20	32	19.5	0	15.0

**Buffalo River Watershed (Hydrologic Unit Code - HUC -09020106)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Deede Lowell(100)	CSMP1508	Becker	Buffalo R @ Duffney Rd "site 8"	5/5 - 10/7	89	56	100	4		0	12.5

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Wild Rice River Watershed (Hydrologic Unit Code - HUC -09020108)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
HighSchool Mahnomen(60)	CSMP1168	Mahnomen	Wild Rice R @ MN-200 1 mi NE of Mahnomen "WRMSM"	5/28 - 9/30	27	22	33	2		0	17.1
HighSchool Mahnomen(60)	CSMP1166	Norman	Spring Ck @ CSAH-40 8 mi SW of Mahnomen "SCM"	5/28 - 9/30	46	46	46	1		0	16.4
HighSchool Mahnomen(60)	CSMP1167	Mahnomen	White Earth R @ CR-25 2 mi SE of Mahnomen "WER"	5/28 - 9/30	36	19	48	5		0	17.0
HighSchool Mahnomen(60)	CSMP1165	Norman	Marsh Ck @ CR-40 - 6 mi W of Mahnomen "MAR"	5/28 - 9/30	43	39	47	2		0	17.2
HighSchool Mahnomen(100)	CSMP1165	Norman	Marsh Ck @ CR-40 - 6 mi W of Mahnomen "MAR"	5/28 - 9/30	84	72	100	3		0	17.2
HighSchool Mahnomen(100)	CSMP1166	Norman	Spring Ck @ CSAH-40 8 mi SW of Mahnomen "SCM"	5/28 - 9/30	88	63	100	4		0	16.4
HighSchool Mahnomen(100)	CSMP1168	Mahnomen	Wild Rice R @ MN-200 1 mi NE of Mahnomen "WRMSM"	5/28 - 9/30	75	73	78	3		0	17.1

**Red River of the North - Sandhill River Watershed (Hydrologic Unit Code - HUC -09020301)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Lee Gary(60)	CSMP0835	Polk	Sand Hill R at CSAH 1	5/4 - 10/5	51	34	60	6		1	13.3
HighSchool WinEMac(60)	CSMP1302	Polk	Sand Hill R @ 150th St SE crossing (WEM15)	4/17 - 10/27	17	9	27	4		0	12.1
HighSchool WinEMac(60)	CSMP0945	Polk	Sand Hill R @ 120th St SE "WEM20"	4/17 - 10/27	13	8	18	4		0	12.9
HighSchool WinEMac(60)	CSMP1303	Mahnomen	Sand Hill R @ CSAH-7, 7.6 mi SW of Winger (WEM20)	4/17 - 10/27	28	10	53	6		0	12.9
HighSchool WinEMac(100)	CSMP1302	Polk	Sand Hill R @ 150th St SE crossing (WEM15)	4/17 - 10/27	77	68	95	3		0	12.1
HighSchool WinEMac(100)	CSMP1303	Mahnomen	Sand Hill R @ CSAH-7, 7.6 mi SW of Winger (WEM20)	4/17 - 10/27	82	82	82	1		0	12.9
HighSchool WinEMac(100)	CSMP0945	Polk	Sand Hill R @ 120th St SE "WEM20"	4/17 - 10/27	77	68	94	3		0	12.9

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature



**Red Lake River Watershed (Hydrologic Unit Code - HUC -09020303)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Kopari Joyce & John(60)	CSMP1676	Pennington	Red Lake R, 4 mi S of Thief River Falls	7/12 - 9/19	42	30	56	5	8.5	1	
HighSchool Red Lake Falls(60)	CSMP0905	Red Lake	Red Lk R at RR Bridge in Red Lk Falls "RL10"	4/24 - 9/30	41	26	51	3		0	15.0
HighSchool Red Lake Falls(60)	CSMP0893	Red Lake	Little Black R at CR 18 "BL10"	4/24 - 9/30	40	22	56	4		0	14.4
HighSchool Red Lake Falls(60)	CSMP0906	Red Lake	Red Lk R at CR 3, w of Red Lk Falls "RL20"	4/24 - 9/30	32	23	37	3		0	15.3

**Thief River Watershed (Hydrologic Unit Code - HUC -09020304)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Okland Barb & Gerry(60)	CSMP1386	Marshall	Thief R (Ditch 83), T155N/R43W/S26	4/16 - 10/24	39	5	60	25	14.7	3	15.4

**Clearwater River Watershed (Hydrologic Unit Code - HUC -09020305)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Lee Gary(60)	CSMP0838	Polk	Hill R at CSAH 35	5/4 - 10/5	60	60	60	6		1	13.3
Lee Gary(60)	CSMP0836	Polk	Lost River at township rd N of CSAH 33	5/4 - 10/5	60	60	60	6		1	13.1
Lee Gary(60)	CSMP1536	Polk	Poplar R at CSAH-35	5/4 - 10/5	60	60	60	6		1	14.2
Lee Gary(60)	CSMP0837	Pennington	Clearwater R at Co Rd 27	5/4 - 10/5	47	23	60	6		1	13.3
HighSchool WinEMac(60)	CSMP0892	Polk	Inlet to Mitchell Lk at Hwy 2 "MitchIn"	4/17 - 10/27	59	59	59	1		0	13.2
HighSchool WinEMac(100)	CSMP0876	Polk	Maple Creek at Hwy 10, inlet to Maple Lk "MapleIn"	4/17 - 10/27	98	87	100	7		0	13.4
HighSchool WinEMac(100)	CSMP0880	Polk	Inlet to Bee Lk on CR 34, S of Erskine "BeelIn"	4/17 - 10/27	98	88	100	7		0	11.3
HighSchool WinEMac(100)	CSMP0892	Polk	Inlet to Mitchell Lk at Hwy 2 "MitchIn"	4/17 - 10/27	98	90	100	6		0	13.2
HighSchool WinEMac(100)	CSMP0891	Polk	Maple Ck at Hwy 10, outlet to Maple Lk "MapleOut"	4/17 - 10/27	88	63	100	7		0	13.9

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Clearwater River Watershed (Hydrologic Unit Code - HUC -09020305)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
HighSchool WinEMac(100)	CSMP0947	Polk	JD-73 @ 75th St SE, 4.4 mi W of Erskine "JD73"	4/17 - 10/27	98	89	100	7		0	13.1
HighSchool WinEMac(100)	CSMP0890	Polk	Badger Ck at CR208, 2 mi NW of US 59 & 2 Jct "Bad8	4/17 - 10/27	93	64	100	7		0	12.6
HighSchool WinEMac(100)	CSMP0946	Polk	Bee Lake Outlet @ Cameron Lk Rd "BeeOut"	4/17 - 10/27	100	100	100	7		0	13.2
HighSchool Red Lake Falls(60)	CSMP0888	Red Lake	Clearwater R at Klondike Br in Red Lk Falls "CLE1"	4/24 - 9/30	44	44	44	1		0	15.1
HighSchool Red Lake County Central(60)	CSMP0889	Red Lake	Clearwater R at CR 126 "PL10"	1/20 - 11/17	24	24	24	1		0	9.9
HighSchool Red Lake County Central(60)	CSMP1135	Red Lake	Clearwater R @ Co Hwy 5 "OK10"	1/20 - 11/17	37	26	48	2		0	9.4
HighSchool Fosston(60)	CSMP0932	Polk	Poplar R @ Co Rd 30, 1.5 mi W of Fosston "Pop20"	4/23 - 9/24	24	24	24	1		0	15.6
HighSchool Fosston(60)	CSMP0962	Polk	"Hill River Out"	4/23 - 9/24	31	27	34	2		0	15.7

**Snake River Watershed (Hydrologic Unit Code - HUC -09020309)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Roley Allyn(60)	CSMP0242	Marshall	Swift Coulee	4/24 - 10/16	49	20	60	20	12.0	1	

**Roseau River Watershed (Hydrologic Unit Code - HUC -09020314)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
HighSchool Roseau(60)	CSMP0921	Roseau	E Br Roseau R at Co Rd 126 "7MC"	4/22 - 5/22	52	52	52	1		0	9.3
HighSchool Roseau(60)	CSMP0924	Roseau	Roseau R @ MN-310 "RR310"	4/22 - 5/22	43	26	60	2		0	9.6
HighSchool Roseau(60)	CSMP0923	Roseau	Roseau R @ Old RR Bridge nr Malung Town Hall "Mal"	4/22 - 5/22	37	37	37	1		0	8.8
HighSchool Roseau(60)	CSMP0925	Roseau	Sprague Ck @ MN-310 "ScR"	4/22 - 5/22	33	28	38	2		0	7.0
HighSchool Roseau(60)	CSMP0922	Roseau	Roseau R @ Center St in Roseau "CSt"	4/22 - 5/22	41	36	47	2		0	8.2

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Roseau River Watershed (Hydrologic Unit Code - HUC -09020314)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
HighSchool Roseau(60)	CSMP0885	Roseau	Roseau R at Co Rd 10 "RC10"	4/22 - 5/22	35	35	35	1		0	9.0
HighSchool Roseau(60)	CSMP0884	Roseau	Hay Ck at Twp Rd 1.25 mi dnst of MN 11 "HAY2"	4/22 - 4/22	10	10	10	1		0	4.0
HighSchool Roseau(60)	CSMP0883	Roseau	Hay Ck at Co Rd 28 "HAY1"	4/22 - 5/22	7	7	7	2		0	7.3
HighSchool Roseau(100)	CSMP0921	Roseau	E Br Roseau R at Co Rd 126 "7MC"	4/22 - 5/22	88	88	88	1		0	9.3
HighSchool Roseau(100)	CSMP0885	Roseau	Roseau R at Co Rd 10 "RC10"	4/22 - 5/22	78	78	78	1		0	9.0
HighSchool Roseau(100)	CSMP0923	Roseau	Roseau R @ Old RR Bridge nr Malung Town Hall "Mal"	4/22 - 5/22	100	100	100	1		0	8.8

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

## St. Croix River Basin

### Upper St. Croix River Watershed (Hydrologic Unit Code - HUC -07030001)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Zacharias Norman(60)	CSMP0209	Pine	West Crooked Creek	4/25 - 10/14	59	47	60	27	17.2	4	
Olesen Paul(60)	CSMP1531	Pine	Patridge Ck @ Partridge Ck Rd, 3 mi E of Askov, MN	4/20 - 10/8	34	34	34	2	20.7	1	13.6
Olesen Paul(100)	CSMP1531	Pine	Patridge Ck @ Partridge Ck Rd, 3 mi E of Askov, MN	4/20 - 10/8	89	66	100	14	20.7	1	13.6
Olesen Paul(100)	CSMP1530	Pine	Patridge Ck @ CSAH-32, 3 mi E of Askov, MN	4/20 - 10/8	84	75	99	16	20.7	1	10.7
Krueger Jerry & Cathy(60)	CSMP0778	Pine	Sand River @ Co Rd 153 T44N/R18W/Sec23	4/4 - 10/24	43	20	60	27	5.1	5	10.9
Klein James L.(100)	CSMP1591	Pine	Bangs Brook, T41N R17W SEC 14	4/7 - 10/6	91	20	100	25	15.6	4	18.0
Eaton Donald B.(60)	CSMP1600	Pine	Bear Ck, 4 mi E of Sandstone, MN T42N R19W S20	3/18 - 10/31	58	45	60	27	26.5	4	
Eaton Donald B.(100)	CSMP1600	Pine	Bear Ck, 4 mi E of Sandstone, MN T42N R19W S20	3/18 - 10/31	84	60	95	27	26.5	4	

### Kettle River Watershed (Hydrologic Unit Code - HUC -07030003)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wentkiewicz Sandy(100)	CSMP0023	Carlton	Moose Horn River	4/1 - 10/17	100	100	100	23	17.8	0	
Pfaller Ruth(100)	CSMP1030	Pine	Kettle R .2 mi upst of CSAH-52, SW of Sturgeon Lk	3/26 - 10/31	100	94	100	30	20.8	0	
McCarter Valinda(100)	CSMP1579	Pine	Pine River 6 mi W of Finlayson, T43N R21W S8	4/24 - 10/23	98	81	100	19	6.7	8	
Lauer James(100)	CSMP1603	Aitkin	Unn Str (Strawberry CK) @ CSAH-23	4/28 - 10/31	98	95	100	8	25.4	1	9.1
Lauer James(100)	CSMP1602	Aitkin	Pine R @ inlet to Pine LK, 8.7 mi SW of Finlayson	4/28 - 10/31	97	90	100	8	25.4	1	9.3

### Snake River Watershed (Hydrologic Unit Code - HUC -07030004)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wilkens Dan & Betty(100)	CSMP1221	Kanabec	Knife River @ CSAH-8, 6 mi N of Mora (KL10)	3/6 - 10/25	99	81	100	16	25.8	2	17.8

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Snake River Watershed (Hydrologic Unit Code - HUC -07030004)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wilkens Dan & Betty(100)	CSMP1220	Kanabec	Knife River @ CSAH-3, 11 mi NW of Mora (H29)	3/6 - 10/25	98	78	100	16	25.8	2	18.1
Wilkens Dan & Betty(100)	CSMP1219	Kanabec	Unn Str Trib to Knife R @ CSAH-15 (H9)	3/6 - 10/25	100	93	100	16	25.8	2	15.9
Wilkens Dan & Betty(100)	CSMP1107	Mille Lacs	Knife River @ 30th Ave, 5.5 mi S of Isle (ML156)	3/6 - 10/25	90	47	100	16	25.8	2	17.2
Voelk Jamie(60)	CSMP1265	Kanabec	Snake R, T40N R23W Sec 6, W of Brook Park, MN	3/21 - 10/7	60	49	60	27	19.7	14	9.5
Trent Jerald(100)	CSMP0673	Pine	Inlet to Cross Lk, E 'Bun Ck'	5/21 - 10/5	15	5	28	3	16.0	2	19.0
Trent Jerald(100)	CSMP0650	Pine	Inlet to Cross Lk, N 'Cross Ck @ Co Rd 125'	5/21 - 10/5	94	77	100	4	16.0	4	16.0
Smith Susan(60)	CSMP0784	Aitkin	Snake River @ McGrath T43N R23W S16	4/24 - 9/29	56	48	60	3	2.8	1	16.8
Maki Sara(60)	CSMP1042	Pine	Snake River @ boat access in Pine City	4/2 - 10/16	60	60	60	1	18.9	3	
Maki Sara(100)	CSMP1042	Pine	Snake River @ boat access in Pine City	4/2 - 10/16	80	61	98	14	18.9	3	
Landini James(60)	CSMP1466	Aitkin	Cowan's Bkat 180th Ave 6 mi SE of McGrath, MN	5/16 - 7/26	56	51	58	4		1	
Landini James(60)	CSMP1465	Kanabec	Chelsey BK at 370th Ave, 8 mi SE of McGrath, MN	5/16 - 7/25	57	56	58	4		1	
Doberstein Ed(100)	CSMP0646	Pine	Snake River @ T39N R20W Sec. 27	4/15 - 10/7	93	62	100	24	12.4	3	17.9
Anderson Bill(100)	CSMP0208	Pine	Snake River	4/23 - 9/25	97	73	100	16	19.1	10	21.0

**Lower St. Croix River Watershed (Hydrologic Unit Code - HUC -07030005)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wintz Donald & Sandi(60)	CSMP0812	Chisago	Dry Creek at Reed Avenue, N of CSAH 16	4/12 - 10/19	51	18	60	11	15.9	1	
Walton Gene(60)	CSMP0270	Chisago	Unnamed Tributary to Goose Lake	4/15 - 10/10	44	20	60	4	17.0	2	
Stone Mark(60)	CSMP1650	Chisago	Sunrise R @ Viking Blvd 2 mi NE of Wyoming, MN	5/31 - 10/6	60	60	60	1	13.6	4	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Lower St. Croix River Watershed (Hydrologic Unit Code - HUC -07030005)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Stone Mark(100)	CSMP1650	Chisago	Sunrise R @ Viking Blvd 2 mi NE of Wyoming, MN	5/31 - 10/6	100	100	100	10	13.6	4	
Schulze Charles(60)	CSMP0816	Chisago	S Br Sunrise R at US-61	3/29 - 10/14	59	49	60	20	10.1	5	17.1
Schmitz Mary(60)	CSMP0173	Chisago	West Branch Sunrise River	3/22 - 10/11	30	18	51	15	17.5	4	
Peters William (Bill) & Millie(60)	CSMP0820	Chisago	Rush Ck at Evergreen Ave, T37N/R21W/S19	4/1 - 10/31	55	28	60	8	19.7	3	
Paul Gene(60)	CSMP0172	Chisago	Sunrise River	4/28 - 10/7	60	60	60	14	11.3	0	
Odegard Douglas(60)	CSMP1696	Pine	St. Croix River @ end of CR-118, "Snake R Landing"	4/3 - 10/10	46	46	46	1	17.2	1	
Odegard Douglas(100)	CSMP1696	Pine	St. Croix River @ end of CR-118, "Snake R Landing"	4/3 - 10/10	84	49	100	10	17.2	1	
Meehan Vickie(60)	CSMP0349	Chisago	Lawrence Creek	3/22 - 10/26	55	39	60	8	9.2	1	
McKinney Michael(100)	CSMP1729	Washington	Browns CK dwnstrm of Neal Ave, Stillwater, MN	4/15 - 9/24	81	38	96	19	15.9	10	16.9
McKinney Michael(100)	CSMP1414	Washington	Unn Str (trib to Mckusick Lk) @ Brown's Ck Divers.	4/15 - 9/24	61	22	100	19	15.9	10	16.9
McKinney Michael(100)	CSMP1730	Washington	Browns CK 2 mi NW of Stillwater	4/15 - 9/24	72	34	95	18	15.9	10	17.2
McElhinney Kirk(60)	CSMP0814	Chisago	Dry Ck at Reed Avenue & 375th St	4/25 - 9/28	55	40	60	4	12.5	0	17.1
Lockway Barb(60)	CSMP1441	Washington	Browns Ck @ Hwy 95 culvert, T30N/R20W/S21	3/25 - 10/5	31	4	58	3	13.8	3	
Lockway Barb(100)	CSMP1441	Washington	Browns Ck @ Hwy 95 culvert, T30N/R20W/S21	3/25 - 10/5	82	4	100	19	13.8	3	
Lamwers Kelly(60)	CSMP0825	Chisago	S Br Sunrise River at Kettle River Road	3/24 - 10/6	57	39	60	11	19.4	4	19.7
Kinny Monica(60)	CSMP0823	Chisago	Trib Little Comfort Lk @ Itasca Avenue	4/20 - 10/10	56	22	60	13	15.0	4	
Kessen Bob(60)	CSMP0269	Chisago	West Branch Sunrise River	4/1 - 10/6	22	10	42	28	11.4	6	
Johnson Sharon(60)	CSMP0805	Chisago	Hay Creek 1.5 mi SW of Sunrise T35N/R20W/S7	4/26 - 10/30	60	52	60	27	13.5	1	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Lower St. Croix River Watershed (Hydrologic Unit Code - HUC -07030005)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Dullum Carolyn S.(60)	CSMP0821	Chisago	Unnamed Outlet from Johason Lk at CSAH 10	4/26 - 9/30	54	24	60	22	9.0	7	
DeClercq Dayle(60)	CSMP0346	Chisago	Teacher Creek "N Chisago Lakes Township"	4/1 - 10/3	44	36	52	9	14.2	14	
Christopherson Mary(60)	CSMP0815	Chisago	N Br Sunrise River at Trulson Rd	4/18 - 10/14	53	21	60	12	6.5	1	
Christianson Linda(100)	CSMP0352	Chisago	Sunrise River	6/11 - 10/8	98	91	100	10	12.4	2	
Carlson Britt(100)	CSMP1694	Washington	St. Croix R at lift bridge in Stillwater, MN	4/12 - 10/25	54	34	83	29	19.2	3	20.1
Boxeth Bruce(60)	CSMP0813	Chisago	Co Ditch 3 at Keystone Avenue	4/23 - 9/11	44	35	60	9		1	18.1
Banta Dave(60)	CSMP0216	Pine	Rock Creek	5/25 - 8/25	56	26	60	14	11.0	3	
Adams Wendy(100)	CSMP1688	Washington	Mill Strm 0.3 mi N Broadway, Marine on St. Croix	4/19 - 10/2	99	97	100	8	15.9	4	

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

## Upper Mississippi River Basin

### Mississippi River - Headwaters Watershed (Hydrologic Unit Code - HUC -07010101)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Campbell Ann(100)	CSMP0986	Beltrami	Mississippi R at Bike Path, Lake Bemidji Outlet	4/24 - 10/10	97	63	100	24	12.0	7	

### Leech Lake River Watershed (Hydrologic Unit Code - HUC -07010102)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Hudson Dallas(100)	CSMP1010	Hubbard	Trib to Shingobee R upst of CR-83, E of Akeley	3/17 - 9/25	96	36	100	27	13.8	7	13.5
Hudson Dallas(100)	CSMP1009	Hubbard	Shingobee R (Inlet) upst of Co Rd 83 E of Akeley	3/17 - 9/25	100	89	100	27	13.8	7	14.7

### Mississippi River - Grand Rapids Watershed (Hydrologic Unit Code - HUC -07010103)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Risacher Tom(60)	CSMP1017	Carlton	Tamarack River 2 mi NW of Wright @ CR-126	3/22 - 10/6	50	46	56	10	17.1	5	
Kitzrow Donald K.(60)	CSMP1534	Aitkin	Morrison Brook 3.5 mi NW of Hill City, MN	5/2 - 8/15	60	60	60	9		2	12.7
Fortner Larry(60)	CSMP1731	Itasca	Unn CK btwn Scrapper & Balsam LK, 16 mi N of Bovey	6/15 - 9/26	49	49	49	1		2	
Fortner Larry(100)	CSMP1731	Itasca	Unn CK btwn Scrapper & Balsam LK, 16 mi N of Bovey	6/15 - 9/26	90	88	92	4		2	
Benson Lin(100)	CSMP1425	Aitkin	Morrison Brook near Hill City, T52N/R26W/S23	5/5 - 10/14	100	100	100	3	8.1	1	

### Mississippi River - Brainerd Watershed (Hydrologic Unit Code - HUC -07010104)

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Opelia Jeff(100)	CSMP1259	Morrison	Swan R @ CR-219, 1/4 mi N of Swanville, MN	3/23 - 10/4	100	100	100	19	10.9	7	
Miller Thomas(60)	CSMP1585	Crow Wing	Cedar Brk 3 mi E of Deerwood @ CSAH10	3/22 - 10/4	52	52	52	1	17.4	1	
Miller Thomas(100)	CSMP1585	Crow Wing	Cedar Brk 3 mi E of Deerwood @ CSAH10	3/22 - 10/4	96	45	100	21	17.4	1	
Laursen Peter(100)	CSMP1464	Aitkin	Unnamed Ck at CSAH-3, 7 mi W of Palisade, MN	3/16 - 10/31	100	100	100	25	13.0	4	

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature



**Mississippi River - Brainerd Watershed (Hydrologic Unit Code - HUC -07010104)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Lang Jim(60)	CSMP1207	Morrison	Little Elk R @ 125th Ave ,2 mi NW of Little Falls	4/9 - 10/6	60	60	60	22	16.2	0	16.6
Frick Larry(100)	CSMP1330	Crow Wing	Nokasippi R on Co. Rd. 23, T44N R29W S18 (NOK0800)	4/24 - 10/22	94	80	100	11	12.9	1	
Eisel Mervin C.(100)	CSMP1335	Crow Wing	Nokasippi R near Twin Lakes outlet (NOK0300)	4/26 - 9/29	99	98	100	9	13.3	0	19.0
Eisel Mervin C.(100)	CSMP1333	Crow Wing	Nokasippi R @ CSAH-21, 11mi S of Brained (NOK0325)	4/26 - 9/29	86	76	98	7	13.3	0	20.2
Chirhart Chad & Montana(60)	CSMP1091	Morrison	Mississippi R off 6th Ave in Little Falls	3/20 - 10/6	45	33	50	6	22.7	9	
Chirhart Chad & Montana(100)	CSMP1091	Morrison	Mississippi R off 6th Ave in Little Falls	3/20 - 10/6	84	60	98	20	22.7	9	

**Pine River Watershed (Hydrologic Unit Code - HUC -07010105)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
VanVorst Don(60)	CSMP0253	Cass	Unnamed tributary to Norway Lake	4/18 - 9/27	60	60	60	10	12.8	4	8.3
VanVorst Don(60)	CSMP0252	Cass	Pine River	4/18 - 9/27	60	60	60	24	12.8	7	16.8
O'Donnell Joe & Catherine(100)	CSMP0251	Crow Wing	Pelican Brook	4/10 - 10/6	100	100	100	19	14.5	3	
Johnson Gregory & Mary(100)	CSMP0025	Cass	Pine River	4/24 - 10/22	100	100	100	13	13.7	0	18.4
Carlson Sandra M.(100)	CSMP1572	Crow Wing	Daggett BK 5 mi N of Cross Lake, MN T138N R27W S35	6/1 - 9/30	90	83	100	19	5.7	7	

**Crow Wing River Watershed (Hydrologic Unit Code - HUC -07010106)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Zahlen Steve & Barbara(100)	CSMP1038	Hubbard	Fish Hook R .4 mi W of MN-87, 1 mi NW of Hubbard	3/23 - 10/7	100	100	100	24	15.3	2	16.8
Tyrell James(60)	CSMP1160	Wadena	Partridge R @ CR-114 (231st Ave)	3/22 - 11/30	58	39	60	21	20.8	5	12.7
Tritz Chuck(100)	CSMP0348	Hubbard	Shell River	5/1 - 10/31	95	61	100	19	17.3	1	17.5

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Crow Wing River Watershed (Hydrologic Unit Code - HUC -07010106)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Sumner Curt(60)	CSMP1078	Wadena	Crow Wing R @ old CSAH-18 Br, 7 mi SE of Hubbard	4/2 - 10/27	60	60	60	15	20.8	0	
Ronning Del Roy(100)	CSMP1115	Wadena	Stocking Ck at outlet of Stocking Lake, nr Menahga	4/15 - 10/14	78	52	100	5	17.6	1	18.9
Petterson Kyle(60)	CSMP0688	Wadena	Blueberry River in Menahga	3/1 - 10/27	60	60	60	8	16.2	4	15.4
Peterson Marilyn(100)	CSMP1486	Hubbard	Unn str (Portage R) @ CSAH-18 "PR-1"	4/20 - 10/30	96	63	100	23	11.3	12	18.7
Messer Melvin W.(100)	CSMP0787	Wadena	Shell River @ CSAH-24 Shell City Bridge "SR-7"	4/13 - 10/13	97	90	100	27		1	16.1
Messer Melvin W.(100)	CSMP1484	Hubbard	Fish Hook R @ 3rd St E in Park Rapids "FH-2"	4/14 - 10/13	98	87	100	26		1	18.2
Mattson Michael(60)	CSMP1161	Wadena	Unn Trib to S end of Stocking Lake, N of CSAH 17	5/1 - 9/27	58	45	60	7		3	12.8
Mattson Michael(60)	CSMP1162	Wadena	Unn Trib to E side of Stocking Lake at CSAH 17	5/1 - 9/27	45	5	60	7		3	14.0
Lindblom Leofwin "Lefty"(100)	CSMP0833	Wadena	Kettle River at CR-156 (county line)	3/1 - 11/30	97	89	100	28	24.6	5	13.8
Lindblom Leofwin "Lefty"(100)	CSMP1054	Wadena	Shell R @ Blueberry Bridge Rd, NE of Menahga	3/1 - 11/30	68	22	100	32	24.6	5	16.2
Lindblom Leofwin "Lefty"(100)	CSMP1057	Wadena	Blueberry R @ US-71, N of Menahga	3/1 - 11/30	97	83	100	20	24.6	4	14.1
Lindblom Leofwin "Lefty"(100)	CSMP1056	Wadena	Blueberry R @ inlet to Blueberry Lk, N of Menahga	3/1 - 11/30	96	85	100	19	24.6	2	15.3
Lindblom Leofwin "Lefty"(100)	CSMP0832	Hubbard	Shell R at US 71, 3.5 mi N of Menahga	3/1 - 11/30	92	50	100	28	24.6	5	14.0
Lindblom Leofwin "Lefty"(100)	CSMP1055	Wadena	Shell R @ inlet to Blueberry Lake, N of Menahga	3/1 - 11/30	89	55	100	19	24.6	1	15.4
Lindblom Leofwin "Lefty"(100)	CSMP0834	Wadena	Blueberry River at Co Rd 16 (384th St)	3/1 - 11/30	97	83	100	28	24.6	5	14.1
Grob Kenneth(100)	CSMP1485	Hubbard	Hay Creek @ US-71, 8.5 mi N of Park Rapids "HC-1"	4/10 - 10/29	100	100	100	2	10.7	0	21.5
Eliason Robert(100)	CSMP1435	Cass	Unnamed (Mayo or Rice) Ck, 2 mi NW of Niswaga	4/13 - 10/14	98	87	100	7	6.8	1	13.5
Eliason Robert(100)	CSMP1434	Crow Wing	Unn Ck(Cullen Brk)@Lwr Cullen Rd, 1 mi N of Niswaga	4/15 - 10/14	100	100	100	7	6.8	1	12.5

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Crow Wing River Watershed (Hydrologic Unit Code - HUC -07010106)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Eliason Robert(100)	CSMP1436	Cass	Stoney Brook @ Diana Dr, 3.5 mi W of Nisswa	4/13 - 10/14	100	100	100	7	6.8	1	9.9
Eliason Robert(100)	CSMP1437	Cass	Home Brook @ Cty Rd 107, 6 mi SW of Nisswa	4/13 - 10/14	100	100	100	7	6.8	1	11.0
Caya Doug(60)	CSMP1618	Wadena	Big Swamp CK @ Bunny Hill Rd, 6 mi NE of Nimrod	4/14 - 9/30	60	60	60	21	11.8	14	17.0
Caya Doug(60)	CSMP1679	Wadena	Unnamed trib to Big Swamp CK @ 336th St.	4/14 - 9/30	50	11	60	21	11.8	13	15.4
Brevik Jane(60)	CSMP1653	Hubbard	Straight R 3.5 mi S of Park Rapids, MN	5/3 - 9/7	60	60	60	7	6.6	1	15.3

**Redeye River Watershed (Hydrologic Unit Code - HUC -07010107)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Tomperi Kari(100)	CSMP0683	Wadena	Union Creek in Wadena	5/26 - 9/15	100	100	100	9		1	16.4
Siegel Jerry(60)	CSMP0681	Wadena	Red Eye River @ Hwy 71, Sebeka	3/1 - 10/31	57	30	60	12	23.7	12	12.8
Siegel Jerry(100)	CSMP0681	Wadena	Red Eye River @ Hwy 71, Sebeka	3/1 - 10/31	92	88	97	20	23.7	12	12.8
Oldakowski Anne(60)	CSMP0258	Wadena	Leaf River @ CSAH 20 bridge, 2 Mi N of Wadena	4/23 - 10/25	60	60	60	4	15.7	0	16.5
Oldakowski Anne(100)	CSMP0258	Wadena	Leaf River @ CSAH 20 bridge, 2 Mi N of Wadena	4/23 - 10/25	98	86	100	7	15.7	0	16.5
Carlson Kenneth(60)	CSMP0682	Wadena	Wing River @ CR-111 Bridge	5/1 - 10/30	56	50	60	25		1	
Brill Walter L.(60)	CSMP1287	Wadena	Unnamed Ck (Hay Ck) @ 241st St. 6 mi NW of Staples	4/19 - 9/30	59	53	60	15	4.6	1	14.2
Brill Walter L.(100)	CSMP1287	Wadena	Unnamed Ck (Hay Ck) @ 241st St. 6 mi NW of Staples	4/19 - 9/30	95	93	98	5	4.6	1	14.2
Bergquist James(60)	CSMP1522	Wadena	Wing R @ Todd Line Rd, 4 mi SW of Verndale, MN	3/4 - 10/11	60	60	60	12	18.1	14	15.7
Bergquist James(100)	CSMP1522	Wadena	Wing R @ Todd Line Rd, 4 mi SW of Verndale, MN	3/4 - 10/11	99	92	100	15	18.1	14	15.7

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Long Prairie River Watershed (Hydrologic Unit Code - HUC -07010108)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Tonn-Sr. Martin F.(60)	CSMP1517	Douglas	Long Prairie R, 1/2 mi N of Carlos, T129/R37W/S12	4/6 - 10/31	60	57	60	27	16.2	4	17.8
SauerFamily Jeff(60)	CSMP1258	Todd	Long Prairie R @ CR-90, 2 mi S of Browerville, MN	4/26 - 10/27	59	53	60	9	12.6	1	17.2
Gondek Joseph R.(100)	CSMP0459	Douglas	Kruegers Slough inlet to Lake Le Homme Dieu	4/19 - 9/30	100	100	100	23	11.9	3	
Fulton Jerry(60)	CSMP0460	Douglas	Unn Inlet to Lk Miltona frm Spring Lk, Douglas Cty	4/16 - 10/31	60	60	60	9	15.3	0	17.9
Fulton Jerry(60)	CSMP0461	Douglas	Unn inlet to Lake Miltona @ Dittberners Creek Rd	4/16 - 10/31	60	60	60	9	15.3	0	17.9
Cin Dennis E.(60)	CSMP0395	Douglas	Douglas Co. Ditch 6	3/20 - 9/27	55	33	60	6	9.0	2	5.5

**Mississippi River - Sartell Watershed (Hydrologic Unit Code - HUC -07010201)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Waterman Russ(100)	CSMP0662	Stearns	Lower Spunk Creek T125N R30W Sec 21	6/25 - 10/6	100	100	100	10	5.0	0	
Waterman Russ(100)	CSMP1732	Stearns	Spunk CK between Lower and Middle Spunk LK in Avon	6/25 - 10/6	100	100	100	10	5.0	0	
Tomlyanovich Aletha(100)	CSMP0643	Stearns	Spunk Creek from Upper to Middle Spunk Lake	6/10 - 10/3	100	100	100	8		5	
Schwalboski Robert(60)	CSMP1212	Benton	Little Rock Creek 3.5 mi NE of Rice, MN	4/1 - 9/30	56	46	60	27	16.3	6	
Schindele Jim(60)	CSMP1004	Morrison	Mississippi R at CSAH 26 W of Royalton	4/4 - 9/20	60	60	60	10		4	17.7
Schindele Jim(60)	CSMP1003	Morrison	Platte River at Centre St in Royalton, MN	4/4 - 9/20	60	60	60	10		4	18.1
Jendro Connie(60)	CSMP0026	Morrison	Two Rivers	3/23 - 10/15	55	1	60	28	17.2	16	
Ferche John R.(60)	CSMP1681	Benton	Mississippi R 3 mi S of Benton, MN	6/1 - 10/9	60	52	60	18	14.9	4	21.9
Czajkowski Ron(60)	CSMP1239	Stearns	Spunk Ck @ Queens Rd. Stearns Co., MN	3/14 - 10/31	56	17	60	26	15.7	12	20.3
Czajkowski Ron(60)	CSMP0701	Stearns	So. Branch Two Rivers	3/14 - 10/31	50	6	60	28	15.7	10	21.0

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature

**Sauk River Watershed (Hydrologic Unit Code - HUC -07010202)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Waldorf Gene(60)	CSMP0185	Todd	Fish Creek, "d"	4/26 - 10/3	53	51	57	3	13.9	1	
Waldorf Gene(60)	CSMP0091	Todd	Fish Creek, "b"	4/26 - 10/3	43	35	51	2	13.9	1	
Waldorf Gene(60)	CSMP0184	Todd	Unnamed tributary to Fish Creek, "c"	4/26 - 10/3	57	56	58	2	13.9	1	
Waldorf Gene(60)	CSMP0090	Todd	Fish Creek, "a"	4/26 - 10/3	50	48	52	2	13.9	1	
Thielen Dennis(60)	CSMP1121	Stearns	Sauk River @ Riverview Road, SE of Melrose	3/23 - 10/13	36	26	53	18	24.7	11	20.1
Stewart Mike(60)	CSMP0850	Stearns	Inlet to Cedar Island Lk off Edgeview Rd	4/26 - 6/25	30	0	60	2	8.1	1	
Stewart Mike(60)	CSMP0520	Stearns	Browns Lk Inlet Just W of MN-22,	4/26 - 6/25	54	47	60	2	8.1	1	
Stewart Mike(60)	CSMP1122	Stearns	Browns Lk outlet - Long Lake Inlet T122N/R31W/S2	4/26 - 6/25	56	52	60	2	8.1	1	
Renard Jeanine(60)	CSMP0092	Todd	Fish Creek	4/22 - 9/3	54	49	60	7	13.6	7	15.6
Neisinger Brent(60)	CSMP1652	Stearns	Cold Spring Ck @ Red River St S in Cold Spring, MN	5/27 - 10/8	60	58	60	13	20.8	3	
LakeAssociation Smith(60)	CSMP0803	Douglas	Unnamed Trib to Smith Lake, SW corner	4/14 - 10/3	60	60	60	5		2	7.3
Kummer Jeff & Cindy(60)	CSMP1377	Stearns	Kolling Ck (Becker Lake) 1.5 mi WSW of Richmond	5/18 - 9/26	60	60	60	5		0	20.6
Glauner Mike(60)	CSMP1183	Stearns	Sauk R @ CR-4	3/25 - 9/30	48	10	60	27	12.6	15	
Chovan Joe(100)	CSMP0523	Stearns	Big Fish Lake Outlet	4/13 - 10/15	100	100	100	11	22.7	1	15.1
Chovan Joe(100)	CSMP0522	Stearns	Inlet to Big Fish Lake	4/13 - 10/15	100	100	100	10	22.7	1	12.2
Borgmann Dale(60)	CSMP1159	Stearns	Pleasant Lake outlet at CR-6	4/18 - 9/26	60	60	60	2	15.9	7	14.6
Borgmann Dale(100)	CSMP1159	Stearns	Pleasant Lake outlet at CR-6	4/18 - 9/26	44	0	100	22	15.9	7	14.6

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Mississippi River - St. Cloud Watershed (Hydrologic Unit Code - HUC -07010203)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wendt Loran(60)	CSMP1005	Stearns	Trib to Lk Louisa ('Spring Brook') off Ashview Rd	5/4 - 10/11	60	60	60	22	17.4	19	
Thole Daniel(60)	CSMP0663	Benton	St. Francis River	3/23 - 10/31	56	5	60	32	22.4	8	15.1
Schwalboski Robert(60)	CSMP1213	Benton	Mayhew Ck @ 35th St 4 mi E of Sauk Rapids, MN	4/1 - 9/30	37	29	45	27	16.3	7	
Schmidt Howard(60)	CSMP0998	Wright	Clearwater R dnst of MN-55, 2 mi SE of Kimball	4/1 - 10/6	60	60	60	4	19.1	3	17.8
Rossmann Patrice(60)	CSMP1423	Sherburne	Mississippi R 2.5 mi upstream from conf. w/ Elk R	4/2 - 10/9	58	53	60	24	10.5	1	18.4
Roeder Jon & Delores(60)	CSMP0777	Stearns	Clearwater R btn Clearwater and Grass Lake	4/7 - 10/11	46	37	60	3	11.8	3	
Roeder Jon & Delores(100)	CSMP0777	Stearns	Clearwater R btn Clearwater and Grass Lake	4/7 - 10/11	94	74	100	14	11.8	3	
Pundsack Gene & Betty(100)	CSMP0116	Benton	Stony Brook at 45th St, "site 1"	4/29 - 9/27	100	100	100	11	9.8	1	
Oscarson Chuck(60)	CSMP1581	Sherburne	Elk R @ CSAH-15, 4 mi E of Big Lake, MN	4/22 - 10/7	55	42	60	17		7	
Oscarson Chuck(60)	CSMP1582	Sherburne	Tibbets Bk @ CR-35, 4.5 mi E of Big Lake, MN	4/22 - 10/7	59	47	60	17		7	
Lueck&Hageman Ralph & Mary(100)	CSMP1670	Sherburne	Tibbits BK @ 209th Ave NW, 4.5 mi E of Big LK, MN	7/12 - 10/22	96	88	100	7	11.9	2	19.3
Kydd George(60)	CSMP0229	Sherburne	Rush Lake outlet	4/2 - 10/30	26	13	52	20	15.1	3	18.7
Kydd George(60)	CSMP0675	Sherburne	Briggs Bayou @ County Road 16	4/2 - 10/30	39	30	51	7	15.1	3	17.6
Kydd George(60)	CSMP0227	Sherburne	Rice Creek at CSAH 16	4/2 - 10/30	38	30	52	10	15.1	2	16.3
Kydd George(100)	CSMP0675	Sherburne	Briggs Bayou @ County Road 16	4/2 - 10/30	76	52	100	17	15.1	3	17.6
Kydd George(100)	CSMP0229	Sherburne	Rush Lake outlet	4/2 - 10/30	62	51	75	4	15.1	3	18.7
Kydd George(100)	CSMP0222	Sherburne	Briggs Creek, "1B"	4/2 - 10/30	93	59	100	24	15.1	3	13.9
Kydd George(100)	CSMP0228	Sherburne	Elk River at CSAH 6	4/2 - 10/30	77	55	92	23	15.1	3	15.6

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Mississippi River - St. Cloud Watershed (Hydrologic Unit Code - HUC -07010203)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Kydd George(100)	CSMP0227	Sherburne	Rice Creek at CSAH 16	4/2 - 10/30	71	51	92	14	15.1	2	16.3
Jones Dave(60)	CSMP0225	Sherburne	Elk River at Co. Rd. 61	6/3 - 10/8	60	60	60	11	16.5	1	17.0
Jones Dave(60)	CSMP0223	Sherburne	Briggs Creek, "1A"	6/3 - 10/8	60	58	60	11	16.5	1	15.1
Jones Dave(60)	CSMP0224	Sherburne	Rice Creek at CSAH 6	6/3 - 10/8	18	12	40	11	16.5	1	19.8
Jones Dave(60)	CSMP0676	Sherburne	Rice Creek @ 42nd Street	6/3 - 10/8	60	60	60	11	16.5	1	18.1
Johnson David(60)	CSMP1590	Sherburne	Elk R @ CR-62, 6 mi ESE of St. Cloud	3/24 - 9/28	10	10	10	1	12.0	3	
Johnson David(100)	CSMP1590	Sherburne	Elk R @ CR-62, 6 mi ESE of St. Cloud	3/24 - 9/28	94	68	100	14	12.0	3	
Hinz Luvern(60)	CSMP1279	Stearns	Willow Creek S of Kimball T21N/R29W/S11	3/23 - 10/30	58	10	60	24	29.8	8	
Fuchs Dennis(60)	CSMP1734	Sherburne	Rice CK 9.3 mi SW of Foley, MN	5/15 - 10/3	26	17	50	4	12.7	1	
Ernhart Jim & Mary(60)	CSMP1473	Sherburne	Elk R @ confluence with Mississippi R, T32/R26W/S4	4/13 - 10/8	39	23	58	29	16.4	11	21.0
Durant Karen(60)	CSMP0515	Wright	Fish Creek, T122N R27W sec. 13	5/13 - 9/26	54	17	60	12	10.6	5	
Durant Karen(60)	CSMP0516	Wright	Unnamed Tributary to Fish Lake, T122N R26W sec. 18	5/13 - 9/26	55	29	60	12	10.6	5	
Durant Karen(100)	CSMP0515	Wright	Fish Creek, T122N R27W sec. 13	5/13 - 9/26	98	90	100	9	10.6	5	
Durant Karen(100)	CSMP0516	Wright	Unnamed Tributary to Fish Lake, T122N R26W sec. 18	5/13 - 9/26	96	60	100	10	10.6	5	
Childs Dan(60)	CSMP1647	Sherburne	Elk R @ CSAH-11, 2.5 mi SE of Becker, MN	7/6 - 10/12	36	28	42	17	12.2	8	
Bock Robert(60)	CSMP0635	Sherburne	Elk River @ CSAH 23	3/19 - 10/25	36	17	60	27	19.2	0	17.4
Bliss Clinton & Gretch(60)	CSMP1000	Stearns	Trib to Lk Marie ("Thiel Ck") off 58th Ave	5/12 - 10/26	60	60	60	24	19.0	4	
Anderson Neil(60)	CSMP1697	Stearns	Mississippi R @ 10th St S BR in St Cloud, MN	4/1 - 10/14	47	21	60	12	14.3	4	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**North Fork Crow River Watershed (Hydrologic Unit Code - HUC -07010204)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Wuollet Sheryl, Erikson, Ella &	CSMP0204	Wright	No. Fork Crow River	5/23 - 10/18	49	28	60	18	11.9	8	
Schwinger Bob(60)	CSMP0254	Meeker	Unnamed tributary to Manuella Lake	4/30 - 10/2	56	28	60	22		0	
Schulte Bernard(60)	CSMP1254	Meeker	Minne Belle Outlet ("Sucker Ck") T118N/R31W/S12	3/23 - 10/29	60	58	60	7	16.9	0	
Oien Curt & Sandy(60)	CSMP1494	Wright	Unn Trib to Crow R @ CSAH-19, "St. Michael 26"	4/7 - 9/30	57	19	60	26		0	
Oien Curt & Sandy(60)	CSMP1513	Hennepin	Crow R @ new CSAH-116 brg, 2 mi E of St. Michael	4/7 - 9/30	28	19	53	29		0	
Miska Lee G.(60)	CSMP0422	Meeker	Collinwood Lake So. Inlet (from Maple Lake)	4/20 - 10/12	42	8	60	26	15.9	15	
McCurdy Wallace W.(60)	CSMP0195	Wright	No. Fork Crow River	3/25 - 8/24	44	12	60	15		0	
Martini Holly(60)	CSMP0519	Wright	Crow River	4/18 - 10/5	23	16	38	20	13.3	6	
Marshall Torney(60)	CSMP0196	Wright	Crow River	5/5 - 10/9	23	19	26	8	14.1	4	
Marjapori Carol R.(60)	CSMP0423	Wright	Crow River, "intersection of CR 3 and 37""	4/4 - 10/7	37	19	55	13	9.7	5	17.6
Lofrano Spencer & Marlene(60)	CSMP0562	Wright	N FK Crow River 3 mi W of Rockford, T119N R25W S26	4/8 - 10/8	24	14	55	18	18.3	8	
Leonard Diane(60)	CSMP1498	Meeker	Washington Ck @ US-12, 2.5 mi W of Dassel	5/2 - 6/28	60	60	60	4		0	
Gehlen Richard(60)	CSMP0428	Meeker	Silver Creek	5/1 - 9/2	60	60	60	6		0	
Forst Curt(60)	CSMP1341	Wright	Unn trib to Howard Lk "GC Ditch @ CR-7, Site 14"	5/15 - 10/5	49	32	60	6		0	
Forst Curt(60)	CSMP1158	Wright	Unn trib to Howard Lk at 10th Ave "Motel, Site 4"	6/8 - 9/1	31	18	51	4		0	
Forst Curt(60)	CSMP1157	Wright	Unn trib to Howard Lk at CR-6 "Rearing Pond, #2"	5/22 - 9/1	60	60	60	3		0	
Forst Curt(60)	CSMP0745	Wright	Unn trib to Howard Lk - "N wetland, Site 11"	5/22 - 9/1	60	60	60	3		0	
Forst Curt(60)	CSMP1155	Wright	Unn trib to Howard Lk "Upstream GC Ditch, Site 5"	5/15 - 10/5	45	27	55	5		0	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature



**North Fork Crow River Watershed (Hydrologic Unit Code - HUC -07010204)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Forst Curt(60)	CSMP0744	Wright	Unn Trib to Howard Lk "GC Ditch, Site 6"	5/15 - 10/5	56	44	60	6		0	
Forst Curt(60)	CSMP1156	Wright	Unn trib to Howard Lake NE of Ingram Ave "Site 7"	5/15 - 10/5	60	60	60	4		0	
Fischer Brian(60)	CSMP1627	Wright	Crow R just E of CSAH-36, 4 mi N of Rogers, MN	6/8 - 9/16	19	17	21	4		0	
Davidson Gabe(60)	CSMP0201	Wright	No. Fork Crow River	5/6 - 10/17	48	31	60	12		0	
Bird Brad(60)	CSMP1325	Meeker	CD 26 inlet to Long Lk, 3.5 mi S of Grove City	4/20 - 10/3	30	8	60	25	16.7	7	
Barlow Walt(60)	CSMP0193	Wright	No. Fork Crow River	5/3 - 11/1	49	15	60	20		0	
.Ramthun Roger(60)	CSMP1076	Meeker	Grove Creek @ US Hwy 12	5/2 - 8/23	47	30	59	4		0	

**South Fork Crow River Watershed (Hydrologic Unit Code - HUC -07010205)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Schreifels Gary(60)	CSMP0187	McLeod	Buffalo Ck @ CSAH-1, 2.5 mi E of Glencoe	3/19 - 10/8	35	14	58	27	27.7	10	15.5
Rust Joyce(60)	CSMP1740	Meeker	S FK CROW R AT ROAD BTN S7/12 3 MI NE OF COSMOS	4/30 - 9/21	32	5	60	24		0	
Russek Jack(60)	CSMP1226	Wright	S Fk Crow R @ Bridge Ave. in Delano, MN	4/6 - 10/8	22	12	32	10		0	
Olson Kenneth(60)	CSMP1735	Carver	S Fk Crow R @ CSAH-23, 1/4 mi N of Mayer, MN	3/20 - 10/4	34	16	60	29	22.1	0	
Netland Cory(60)	CSMP1736	Renville	Trib to JD-15 @ CR-71, 3 mi SE Bird Island, MN	8/1 - 9/4	54	48	60	2		0	
Krengel Alex A.(60)	CSMP0424	Carver	So. Fork Crow River	5/1 - 10/26	22	8	60	22		0	
Kammerer Doug(60)	CSMP1741	Carver	S FK CROW R @ END OF STATE ST NW IN WATERTOWN, MN	5/11 - 9/21	21	12	35	50		0	
Furr Tim(60)	CSMP1322	Kandiyohi	S Fk Crow R @ brg nr Cty Park #2	6/9 - 10/16	50	35	60	5		0	
Furr Tim(60)	CSMP1321	Kandiyohi	Unn Ditch inlet to Big Kandiyohi Lk, T118NR34WS28	6/9 - 10/16	33	19	60	5		0	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**South Fork Crow River Watershed (Hydrologic Unit Code - HUC -07010205)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Fluck Gerald&Cathy(60)	CSMP1737	Renville	JD-1, INLET TO LK ALLIE, 6 MI NE OF BUFFALO LK, MN	4/4 - 10/14	18	7	60	16		0	
Fluck Gerald&Cathy(60)	CSMP1738	Renville	UNN STR ON 835TH AVE, 5 MI NE OF BUFFALO LK, MN	4/4 - 10/14	33	13	60	8		0	
Fluck Gerald&Cathy(60)	CSMP1739	Renville	JD-1 AT CSAH-11, 6 MI NE OF BUFFALO, MN	5/18 - 9/7	50	16	60	6		0	
Druskin Marilee F.(60)	CSMP1252	Kandiyohi	Co Ditch 23A @ 45th Ave SW, 4 mi SE of Willmar, MN	3/20 - 10/30	14	8	23	4	20.4	3	
DeBoer Karen(60)	CSMP0712	McLeod	Buffalo Creek SE of Brownton @ Nature Ave & 65th	3/16 - 9/22	23	10	45	6	17.1	2	21.9
DeBoer Karen(60)	CSMP0713	McLeod	Buffalo Creek N of Plato @ Co Rd 74	3/16 - 9/22	34	15	60	14	17.1	6	20.6
Berggren Roger(60)	CSMP0396	McLeod	So. Fork Crow River, "Bluff St. Bridge"	4/17 - 10/16	27	15	53	26		0	
Berggren Roger(60)	CSMP0096	McLeod	So. Fork Crow River, "Co. Rd. 9"	4/17 - 10/16	31	15	58	27		0	
Berggren Roger(60)	CSMP0097	McLeod	So. Fork Crow River, "Co. Rd. 14"	4/17 - 10/16	44	17	60	27		0	
Ballard Gary(60)	CSMP1555	McLeod	Buffalo Ck south of Glencoe, 750 ft upst of CSAH-2	4/17 - 10/13	28	11	55	20	9.3	7	16.9

**Mississippi River - Twin Cities Watershed (Hydrologic Unit Code - HUC -07010206)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Westphal Warren(60)	CSMP0029	Hennepin	Minnehaha Creek	4/18 - 8/15	48	37	60	3	10.1	0	
Westphal Warren(100)	CSMP0029	Hennepin	Minnehaha Creek	4/18 - 8/15	58	40	83	3	10.1	0	
Vant Mike(60)	CSMP1661	Anoka	Rice Ck @ walking path E of MN-47 in Fridley, MN	5/17 - 9/30	33	22	60	12	6.8	2	21.7
Swanson Roger(100)	CSMP0664	Ramsey	Battle Creek off MN-61 @ Battle Creek Regional Pk	4/18 - 10/16	99	88	100	20	14.4	4	15.5
Sovell Donald(60)	CSMP0030	Hennepin	Minnehaha Creek at Harriet Ave	4/12 - 10/30	49	13	60	32	20.2	20	15.2
Schneider George(60)	CSMP0827	Hennepin	Elm Creek @ dock S of CSAH 30 in Maple Grove	3/15 - 10/25	30	5	59	21	21.1	6	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Mississippi River - Twin Cities Watershed (Hydrologic Unit Code - HUC -07010206)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Pagel Paul(60)	CSMP0785	Hennepin	Elm Creek @ Dock, Upstream of Dam	4/3 - 10/31	57	44	60	13	16.1	0	20.4
Pagel Paul(60)	CSMP0786	Hennepin	Elm Ck downstream of Dam T119N/R22W/S10	4/3 - 10/31	56	40	60	11	16.1	0	17.7
Morzenti Jason(60)	CSMP1685	Ramsey	Rice CK @ CR-I; Bike TR BR in Shoreview, MN	7/14 - 9/30	35	22	53	9	8.7	11	
Morzenti Jason(100)	CSMP1685	Ramsey	Rice CK @ CR-I; Bike TR BR in Shoreview, MN	7/14 - 9/30	98	95	100	5	8.7	11	
Lewandowski Amie(60)	CSMP1045	Hennepin	Minnehaha Creek, just dwnstrm of Minnehaha Falls	3/14 - 10/6	52	7	60	22	17.5	1	
Leonard Douglas(60)	CSMP1662	Anoka	Unnamed Ditch at 117th Ave NE in Blaine, MN	4/12 - 10/26	53	30	60	11	9.7	3	
Hoffman Taylor(60)	CSMP1691	Hennepin	Painter Ck @ CSAH-110, 1.5 mi N of Mound, MN	4/12 - 10/3	45	4	60	9	9.5	8	
DeFeo Jim(60)	CSMP0071	Hennepin	Minnehaha Creek @ 36th Ave. in S. Mpls	4/23 - 10/26	42	23	58	25	13.0	5	
Cox Gary & Ethan(60)	CSMP1205	Ramsey	Lambert Ck @ Pond View Ln, White Bear Lk, MN	4/26 - 10/21	21	4	60	14	13.8	4	20.8
Cox Gary & Ethan(100)	CSMP1205	Ramsey	Lambert Ck @ Pond View Ln, White Bear Lk, MN	4/26 - 10/21	91	34	100	13	13.8	4	20.8
Barron Wendy(60)	CSMP1550	Anoka	Coon Ck upstrm of conf with Mississippi R	4/19 - 10/7	59	51	60	8	14.9	4	
Barron Wendy(100)	CSMP1550	Anoka	Coon Ck upstrm of conf with Mississippi R	4/19 - 10/7	83	51	100	8	14.9	4	
Arnold Judy(60)	CSMP1673	Hennepin	Miss R near mi 864/Banfill Island in Brooklyn Park	7/4 - 10/26	50	45	55	5	13.9	0	
.Lyman Celine(60)	CSMP0058	Hennepin	Minnehaha Creek @ "Flats"	4/26 - 10/19	53	40	60	3	9.8	2	16.1
.Hotka Louise(60)	CSMP0001	Hennepin	Mississippi R @ MPLS BLW RR BR NEAR 10TH AVE	4/1 - 10/2	33	27	42	6	14.8	0	
.Gross Gregory(60)	CSMP0997	Ramsey	Rice Creek @ Lexington Ave in Shoreview	3/23 - 9/28	36	18	60	16	12.6	3	
.Biewen Todd(60)	CSMP0035	Hennepin	Bassett Creek at Winnetka Ave.	4/19 - 10/17	56	28	60	9	14.4	2	

Monitoring Period: Period over which transparency readings were taken

Mean: Average stream transparency in centimeters

Min: Minimum transparency reading in centimeters

Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken

Total Rain: Amount of rain reported over entire season in inches

Rain Event: Number of transparency readings taken as a result of rain event

Mean Temp: Average stream temperature

**Rum River Watershed (Hydrologic Unit Code - HUC -07010207)**

Volunteers	Station	County	Stream Name	Monitoring Period	Mean	Min	Max	NT	Total Rain	Rain Event	Mean Temp
Willis Margaret(100)	CSMP1230	Mille Lacs	Rum R @ CSAH-26, Mille Lacs County, MN	4/19 - 10/11	100	99	100	20	22.3	2	19.9
Toth Jean(60)	CSMP1462	Mille Lacs	W Br Rum R 2 mi NW of Foreston at T38N/R27W/S29	4/26 - 10/7	52	40	60	21	14.9	7	
Suchy Susan(60)	CSMP1648	Anoka	Rum R in Anoka, MN	5/8 - 10/2	56	34	60	19	17.1	2	21.9
Roggow Adam W.(60)	CSMP1698	Mille Lacs	Rum R West BR, E of 5th Ave N BR in Princeton	3/26 - 9/13	50	49	52	4	8.4	0	3.9
Medvecky Dave(60)	CSMP1533	Isanti	Unnamed trib to Cedar Ck, 3.5 mi SE of Isanti	3/21 - 10/26	21	7	54	16	18.2	6	
Medvecky Dave(100)	CSMP1533	Isanti	Unnamed trib to Cedar Ck, 3.5 mi SE of Isanti	3/21 - 10/26	99	93	100	10	18.2	6	
McBroom Kathy(100)	CSMP1711	Mille Lacs	Rum R @ CR-13 (60th St), 3 mi N of Princeton, MN	8/13 - 10/7	95	85	100	7	7.6	2	14.5
Larson Brett(100)	CSMP1712	Mille Lacs	Rum R 4 mi SE of Milaca, MN	9/13 - 10/20	100	100	100	7	3.1	4	
Kostecka Ted(100)	CSMP1404	Mille Lacs	Whitefish Lk outlet @ Pine Ctr Rd (CSAH-25)	4/5 - 10/28	96	68	100	17	19.3	2	17.4
Kostecka Ted(100)	CSMP0159	Crow Wing	Seguchie Creek	4/5 - 10/28	98	80	100	17	19.3	2	17.6
Karas Jacob G.(60)	CSMP1680	Mille Lacs	Rum R @ 85th Ave, 3 mi E of Pease, MN	6/28 - 11/30	60	60	60	10		10	15.7
Karas Jacob G.(100)	CSMP1680	Mille Lacs	Rum R @ 85th Ave, 3 mi E of Pease, MN	6/28 - 11/30	64	57	81	36		10	15.7
Gibson Caron(60)	CSMP0264	Isanti	Owl Creek (Co. Ditch 15)	3/23 - 10/28	52	34	60	12	16.4	7	
Gibson Caron(60)	CSMP0263	Isanti	Rum River	3/23 - 10/28	57	41	60	17	16.4	6	
Droogsma Duane(100)	CSMP1714	Mille Lacs	Rum R, W BR @ 80th St, 2.4 mi S of Pease	6/6 - 10/7	100	100	100	17	11.3	6	
Bednarski Joanne(60)	CSMP1264	Anoka	Trott Brook @ Variolite St. in Ramsey, MN	3/31 - 10/6	32	12	50	13	14.7	0	
Andrews Paul(100)	CSMP0161	Mille Lacs	Malone Ck (Thains Ck) @ MN-47	5/1 - 10/28	100	100	100	18	16.1	1	17.5

Monitoring Period: Period over which transparency readings were taken  
Mean: Average stream transparency in centimeters  
Min: Minimum transparency reading in centimeters  
Max: Maximum transparency reading in centimeters

NT: Number of transparency readings taken  
Total Rain: Amount of rain reported over entire season in inches  
Rain Event: Number of transparency readings taken as a result of rain event  
Mean Temp: Average stream temperature