



# RIVER WATCH

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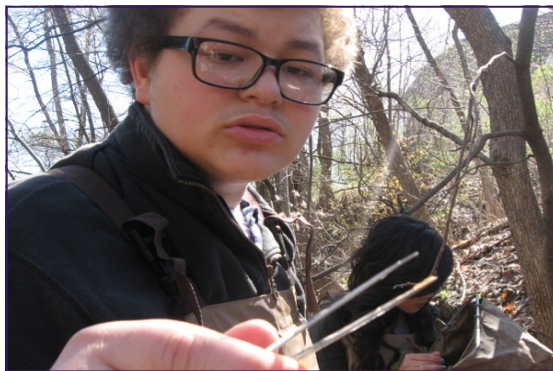


Hennepin County Department of Environmental Services  
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## River Watch 2013: Year in Review



For more information about the Hennepin County River Watch program, please contact:  
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River Watch is a program of Hennepin County Environmental Services sponsored by:



Since 1995, the River Watch Volunteer Monitoring Program has provided hands-on environmental education opportunities for students throughout Hennepin County. Every spring and fall students and their teachers venture into Hennepin County streams to collect important data that helps assess the overall health of the biological communities within them. With waders securely fastened and dip nets in hand, students all over the county monitor for aquatic bugs. It's an eye-opening experience for everyone, and the resulting data helps us to understand the health of the stream.

In 2013, 16 schools and 19 stream stretches were monitored in the spring and/or fall. More than 28 classes, including approximately 473 students and more than 2,300 volunteer hours participated in the River Watch Program. Thank you to all of you who participated this year! You are the future stewards of our water resources.



## 2013 MONITORING GROUPS

School	Site	Current Teacher	Began
Benilde St. Margaret St. Louis Park	Minnehaha Creek #11	John Porisch	1996 18 YEARS!
Blake School Minneapolis	Bassett Creek @ GM site	Dan Trockman	2007 7 YEARS!
Calvin Christian High School Fridley	Shingle Creek @ Lion's Park	James Van de Glind	2009 7 YEARS!
Carondelet Minneapolis	Minnehaha Creek #25	Cece Cope	2004 10 YEARS!
Cooper High School New Hope	Bassett Creek #13	Jon Ong	1999 15 YEARS!
Hopkins High School Hopkins	Minnehaha Creek #19, Minnehaha Creek @ Bremer Bank	John Sammler	1998, 2008 17 YEARS!
Kaleidoscope Charter School Rogers	Rush Creek #4	Brian Maertens Carrie Lynch	2006 8 YEARS!
Metro Tech Academy Minneapolis	Shingle Creek #8	Allison Crowell	2010 4 YEARS!
Nawayee Center School Minneapolis	Minnehaha Creek @ Below the Falls	Cindy Ward Kathy Warner	2007 7 YEARS!
Park Center High School Brooklyn Park	Shingle Creek #10	Cindy Jahnke	1996 18 YEARS!
School of Engineering & Arts Golden Valley	Bassett Creek @ the Bassett Creek Nature Area	Cara Rieckenberg	NEW site in 2013!
South High School Minneapolis	Mattson Brook #20	Cindy Ward	2007 7 YEARS!
Spectrum High School Elk River	Rush Creek #6	Kari Brant	2012 2 YEARS!
St. Michael-Albertville St. Michael	Crow River #31	Kay Nowell	2004 10 YEARS!
Wayzata High School Plymouth	Elm Creek #1 Elm Creek #17	Susie Newman	1995 1998 19 YEARS!
West Lutheran High School Plymouth	Crow River #12	Steve Merten	1999 15 YEARS!

## River Watch 2013: Year in Review



## Hennepin County Stream Evaluations

Stream Grading Scale					
Family Biotic Index	Grade	EPT	Grade	Number of Families	Grade
0.00—4.00	A	9-12	A	12 - 15	A
4.01—5.75	B	6.0 - 8.9	B	9.1 - 11.9	B
5.76—6.50	C	3 - 5.9	C	6 - 9	C
> 6.50	D	< 3	D	< 6	D

Letter Grading Scale	
3.83 - 4.00	A
3.50 - 3.82	A-
3.17 - 3.49	B+
2.83 - 3.16	B
2.50 - 2.82	B-
2.17 - 2.49	C+
1.83 - 2.16	C
1.50 - 1.82	C-
1.17 - 1.49	D+
0.83 - 1.16	D
0.50 - 0.82	D-
0.00 - 0.49	F

The grading scale used in River Watch takes into account three major biotic indices used routinely in biological monitoring programs. The first component is the Family Biotic Index which measures the overall community of invertebrates and their tolerance to pollution levels. The scale ranges from 0 to 10 with the lower values indicating high sensitivity and good water quality if present.

EPT stands for Ephemeroptera, Plecoptera, and Trichoptera or mayflies, stoneflies, and caddisflies. These three families include the most sensitive individuals and is looked at for indications of presence or absence. Higher scores indicate better water quality.

Finally, the number of families measures the overall abundance of families or total diversity of family units. Again, with this index, the higher the number the better.



## Bassett Creek

Bassett Creek meanders eastward from Medicine Lake in Plymouth through Golden Valley until entering the Mississippi River in downtown Minneapolis. The Bassett Creek watershed covers more than 40 square miles and encompasses the cities of Plymouth, Medicine Lake, New Hope, Crystal, Robbinsdale, Minnetonka, St. Louis Park, Golden Valley, and Minneapolis.

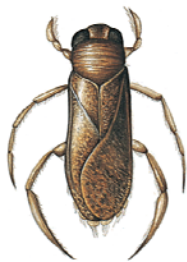
### Bassett Creek Nature Area Golden Valley School of Engineering and Arts

The Bassett Creek Nature Park is located in Golden Valley northwest of the crossroads of Duluth Street and Highway 100. Cara Rieckenberg organized a group of fourth graders from The School of Engineering & Arts to sample this site in 2013. The surrounding area is natural, and it has recently been restored of shoreline vegetation.

Bassett Creek Nature Area Grading History	
Year	Grade
2013	B-

### General Mills Nature Area Golden Valley The Blake School

The Bassett Creek General Mills Natural Area is located in the Golden Valley park system near the crossroads of Betty Crocker Drive and Boone Avenue. Dan Trockman has been bringing his Environmental Science class from the Blake School to sample here since 2007.



General Mills Grading History	
Year	Grade
2013	C+
2012	C
2011	D
2010	D+
2009	No data
2008	C
2007	C

**Average grade**  
6 years  
C-

### Bassett Creek Site #13

Golden Valley  
Cooper High School

This is the most upstream site on Bassett Creek. It is located near Noble Avenue and Golden Valley Road in Golden Valley. The area has several good riffles and a wooded riparian zone. Jon Ong has been bringing his students to sample at this site since 1999.

Bassett Creek Site #13 Grading History			
Year	Grade	Year	Grade
<b>2013</b>	<b>C</b>	2005	C+
2012	C	2004	B-
2011	No Data	2003	C+
2010	C+	2002	C+
2009	C+	2001	C+
2008	D	2000	B-
2007	C	1999	B-
2006	C	1998	C

**Average grade**  
15 years  
C+



## Crow River

The North Fork Crow and South Fork Crow converge in Rockford to become the Crow River, a tributary of the Mississippi River. From Rockford, the Crow River flows northeastward until it meets the Mississippi River between the towns of Otsego and Dayton. The river's course is used to define the boundary between Wright and Hennepin Counties. The Crow River continues to be known for invertebrate families that are not found in any of the other River Watch sites in Hennepin County. The highly sensitive stonefly is routinely found in Crow River samples.

### Crow River #12

Rockford  
West Lutheran

Crow River #12 is located off of Highway 55, in Rockford, downstream of Lake Rebecca Park. This site has been monitored since 1996. Steve Merten and his students have been sampling this site since 1999. This site often shows the best water quality of all the Hennepin County River Watch sites. Several stoneflies, mayflies, and caddisflies were collected in the fall of 2013.

Crow River Site #12 Grading History			
Year	Grade	Year	Grade
<b>2013</b>	<b>B</b>	2003	B-
2012	C	2002	B+
2011	No data	2001	B-
2010	B+	2000	B
2009	B	1999	B+
2008	B-	1998	A-
2007	B-	1997	B-
2006	B	1996	A-
2004	B		

Average grade  
16 years  
B

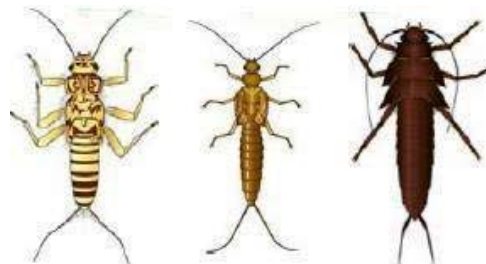


Crow-Hassan Park Preserve  
St. Michael-Albertville

The Crow River Site #31 is located in St. Michael on the opposite bank of the Crow-Hassan Park Reserve. The site is accessed at the St. Michael Wastewater Treatment plant. Kay Nowell and her students have been monitoring this site since 2004.

Crow River Site #31 Grading History	
Year	Grade
<b>2013</b>	<b>B</b>
2012	No data
2011	No data
2010	B+
2009	B+
2008	B
2007	B
2004	B

Average grade  
6 years  
B



## Elm Creek

Elm Creek flows from its headwaters in Medina northward until it enters the Mississippi River in Champlin. The Elm Creek Watershed drains 83,600 acres, in northern Hennepin County, from Elm Creek, Rush Creek, and Diamond Creek. Cities in the watershed include Medina, Hassan, Rogers, Dayton, Corcoran and Maple Grove.

### Elm Creek Golf Club

Medina

Wayzata High School

Elm Creek #1 is located on the Elm Creek Golf Club off of Hwy 55 in Medina. Much of the surrounding area is manicured golf turf. New growth trees line the banks of the stream site. In 2011, Susie Newman began bringing her environmental studies students to sample this site.

Elm Creek Site #1 Grading History	
Year	Grade
<b>2013</b>	<b>D+</b>
2012	No data
2011	C-
2001	C+
1999	C-
1998	C
1997	C-
1995	C+

Average grade  
8 years  
C

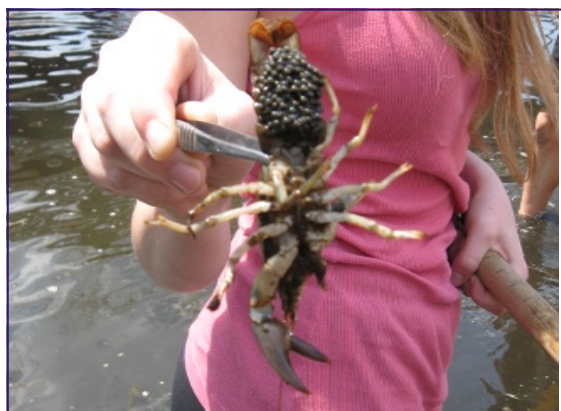


Peony Lane  
Plymouth  
Wayzata High School

This site is located near the crossing of Elm Creek and Peony Lane, on the Wayzata High School campus. Wayzata students began monitoring this site in 1998. Environmental Studies teacher, Susie Newman, has been sampling this site with her classes since 2006. This site always suffers from low water flow. The banks are heavily eroded with little vegetation, and the substrate is mucky.



Elm Creek Site #17 Grading History	
Year	Grade
<b>2013</b>	<b>C</b>
2012	No data
2011	C
2010	C+
2009	C-
2008	C-
2007	C-
2006	C+
1999	C-
1998	C



Average grade  
10 years  
C

Rush Creek  
Maple Grove  
Kaleidoscope Charter School

Rush Creek is a tributary of Elm Creek. Rush Creek #4 is located near the intersection of 101st Avenue North and Lawndale Lane North in Maple Grove. The site is within a grazed pasture land. Cattle are often present in or near the stream. Kaleidoscope Charter School, has been sampling this site since 2006. In the spring of 2013, Brian Maertens brought his students to sample the creek. In the fall of 2013, Carrie Lynch led her students to sample this stretch of Rush Creek. Kaleidoscope students successfully sample every spring and fall.

Rush Creek Site #4 Grading History			
Year	Grade	Year	Grade
<b>2013</b>	<b>C-</b>	2004	C-
2012	C	2002	C-
2011	C-	2001	B-
2010	C+	2000	B
2009	C-	1999	B-
2008	C-	1998	C-
2007	B-	1997	C-
2006	B-		

Average grade  
15 years  
C+

Rush Creek  
Maple Grove  
Spectrum High School

This site is located downstream from Fernbrook Lane in the Elm Creek Park Reserve. Just upstream from this site, the south fork of Rush Creek joins the north fork. Kari Brant and her students began monitoring this site in 2012.

Rush Creek Site #6 Grading History			
Year	Grade	Year	Grade
<b>2013</b>	<b>D+</b>	2002	B
2012	C-	2001	B
2008	B-	2000	B
2007	C+	1999	B+
2006	B-	1998	B+
2005	C+	1997	B-
2004	B-	1996	C+
2003	B-	1995	A-

Average grade  
16 years

## Minnehaha Creek

Minnehaha Creek extends from Lake Minnetonka and meanders eastward 22 miles until it merges with the Mississippi River in South Minneapolis, just below Minnehaha Falls. The creek's watershed is 181 square miles (including Lake Minnetonka). Minnehaha Creek has been monitored as part of River Watch since 1996.

### Burwell Park Minnetonka Hopkins High School

Minnehaha Creek #19 is located on the grounds of the historic Burwell House John Sammler and his class monitor this site most years in both the spring and fall. Recent shoreline stabilization and restoration were completed after the Fall 2012 sampling season. During 2013 sampling Zebra mussels were present.



Minnehaha Creek Site #19 Grading History			
Year	Grade	Year	Grade
<b>2013</b>	<b>C+</b>	2004	C
2012	C+	2003	C
2011	C	2002	C
2010	C	2001	C
2009	C	2000	C+
2008	B	1999	B
2007	A-	1998	B

Average grade  
14 years  
C+

### Bremer Bank St. Louis Park Hopkins High School

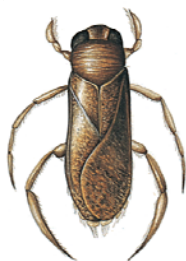
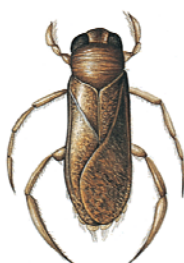
The Minnehaha Creek Site @ Bremer Bank is located at a canoe landing in the vicinity of the Knollwood Shopping Center on Highway 7 in St. Louis Park. This is a good site to see the effects of heavy sand and silt deposits. John Sammler and his students sample this site also.

Minnehaha Creek: Bremer Bank Site Grading History	
Year	Grade
<b>2013</b>	<b>C</b>
2012	C-
2011	C
2010	C
2009	C+
2008	C-

Average grade  
6 years  
C

Utley Park  
Edina  
Benilde-St. Margaret High School

Minnehaha Creek #11 is located at the Utley Park canoe landing just below the Mill Pond Dam. Benilde-St. Margaret High School has been monitoring this site since 1996. John Porisch brings his students out to the creek to monitor every spring and fall.



Minnehaha Creek Site #11 Grading History			
Year	Grade	Year	Grade
<b>2013</b>	<b>D+</b>	2004	B-
2012	C-	2003	C
2011	C	2002	B-
2010	C	2001	C
2009	D+	2000	C+
2008	B-	1999	B-
2007	B-	1998	C+
2006	C	1997	B-
2005	C		

Average grade  
17 years  
C



Minnehaha Creek Site: Below the Falls  
 Minneapolis  
 Carondelet School  
 Newayee Center School

Two schools monitor Minnehaha Creek below the falls in south Minneapolis just before it drains to the Mississippi River. This stretch is forested with a very rocky substrate. The creek becomes fairly deep quickly. Cece Cope and her students from Carondelet have been monitoring this area since 2006. Newayee Center School has been sampling this site since 2008. Kathy Warner brought her students to sample at this site in the fall of 2013.

Carondelet School Grading History			
Year	Grade	Year	Grade
<b>2013</b>	<b>C+</b>	2007	C
2012	B-	2006	C+
2011	C	2004	C+
2010	C	2003	C
2009	C-	2002	B-
2008	C	2001	C

Average grade  
 11 years  
 C

Newayee Center School Grading History	
Year	Grade
<b>2013</b>	<b>C-</b>
2012	B-
2011	No data
2010	No data
2009	C+
2008	No data

Average grade  
 3 years  
 C+

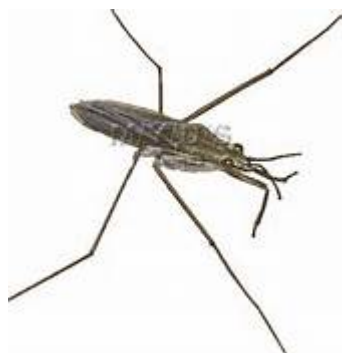


## Pioneer-Sarah Creek

The Pioneer-Sarah Creek Watershed is made up of two streams: Pioneer Creek and Sarah Creek. Pioneer Creek drains out of Lake Independence, and Sarah Creek runs from Sarah Lake. Both streams merge with the Crow River.

### Pioneer Creek Independence

Pioneer Creek Site #24 is located adjacent to a city park in Independence south of Pagenkopf Road. The site contains a thick stand of cattails and the waterflow is slow. Students from Rockford High School along with their teacher, Jason Hester, have been monitoring this site since 2001.



Pioneer Creek Site #24 Grading History			
Year	Grade	Year	Grade
2013	C	2006	B-
2012	D+	2005	C-
2011	No data	2004	D+
2010	D+	2003	D+
2009	B+	2002	D+
2008	D	2001	C-
2007	C-		

Average grade  
12 years

C-



## Shingle Creek

Shingle Creek is formed at the junction of Bass Creek and Eagle Creek in Brooklyn Park. It generally flows southwest until it meets the Mississippi River in Minneapolis. It runs 11 miles and drops 66 feet before reaching the mouth. Cities included in this watershed are Brooklyn Park, Crystal, New Hope and Robbinsdale.

### Shingle Creek Site #8

Brooklyn Park  
Metro Tech Academy

Shingle Creek #8 is located in Brooklyn Park near the North Hennepin Community College. Since 2011, Allison Crowell has been leading her students in the creek. This site is within a wooded corridor. There is a bike path that parallels the creek.

Shingle Creek Site #8 Grading History	
Year	Grade
2013	D+
2012	C
2011	D+

Average grade  
3 years

C-

### Shingle Creek Site #10

Brooklyn Park  
Park Center High School

Shingle Creek #10 is located on the grounds of Park Center High School in Brooklyn Park, near the intersections of Brooklyn Blvd and Noble Avenue. This site has one of the longest data records for the River Watch program in Hennepin County. Cindy Jahnke and her students from Park Center High School have been monitoring this site since 1996.

Shingle Creek Site #10 Grading History			
Year	Grade	Year	Grade
2013	D+	2004	D
2012	C-	2003	D+
2011	C-	2002	C
2010	C	2001	D
2009	C-	2000	D+
2008	C-	1999	D+
2007	C+	1998	D+
2006	C	1997	C+
2005	C	1996	B-

Average grade  
18 years

C-



Lion Park  
Minneapolis  
Calvin Christian High School

Shingle Creek @ Lion Park is located near the intersection of Russell Avenue and 55th Avenue in Minneapolis, near Centerbrook Golf Course. A walking path leads to the stream site. This site was monitored for the first time in 2009 by James Vande Glind and his students from Calvin Christian. He and his students sampled in the fall of 2013.



Shingle Creek @ Lion Park Grading History	
Year	Grade
<b>2013</b>	<b>C</b>
2012	B-
2011	No data
2010	No data
2009	C-

Average grade  
3 years  
C



## West Mississippi

The West Mississippi watershed covers an area of 23.5 square miles in northeastern Hennepin County. The northern section is largely rural with pockets of urban development, while the southern section of the watershed is predominantly urbanized. There are five cities with land in the West Mississippi watershed (Brooklyn Center, Brooklyn Park, Champlin, Maple Grove, and Osseo).

### Mattson Brook Brooklyn Park South High School

Mattson Brook #20 is located where Edinbrook Channel turns into Mattson Brook in Brooklyn Park, near West River Road. This site has been monitored since 1998; however, Cindy Ward has been bringing students from South High School to this site to sample since 2007. Water levels at this site were too low and sampling was not effective in 2013.

Mattson Brook Site #20 Grading History			
Year	Grade	Year	Grade
<b>2013</b>	<b>No data</b>	2004	C
2012	C-	2003	C
2011	No data	2001	C
2010	C	2000	C
2009	D+	1999	B
2008	C-	1998	B
2007	C		

Average grade  
11 years  
C



