

## 2014 RIVER WATCH

### INTRODUCTION:

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.

In 2014, 16 schools and 20 stream stretches were monitored in the spring and/or fall. More than 35 classes, including approximately 707 students and more than 2,300 volunteer hours participated in the River Watch Program.

### GRADING SCALE:

The grading scales 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. EPT stands for Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies). These three families include the most sensitive individuals and their presence indicates better water quality (higher scores). Finally, the number of families measures the overall abundance of families or total diversity of family units. The higher the number indicates the better ecosystem quality.

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

2014 Monitoring Groups					
Site	School	2014 Grade	Cumulative Ave. Grade	Teacher	Years Monitoring
Rush Creek #4, Elm Creek Tributary at 101st Lane, Maple Grove	Kaleidoscope Charter School, Otsego	B-	B-	Carrie Lynch	8
Elm Creek #1, at Elm Creek Golf Club	Wayzata High School, Plymouth	C+	C	Susie Newman	16
Elm Creek #5, down-stream from Rice Lake	West Lutheran HS, Plymouth	D+		Steve Merten	2014
Elm Creek #17, Peony Lane at Wayzata HS	Wayzata High School, Plymouth	C-	C	Susie Newman	16

## Description of the monitoring sites.



Rush Creek Site #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 (above).

Elm Creek Site #1 is located on the Elm Creek Golf Club off of Highway 55 in Medina. Much of the surrounding area is manicured golf turf. New growth trees line the banks of the stream site.

Elm Creek Site #5 is located on Maple Grove Senior High School property directly downstream from Rice Lake. It is located in a wooded natural area. Riffles are present but small. When water levels are high it flows over a dam in the area. At times of low water it runs through a bypass culvert. The banks at this site are steep.

Wayzata students began monitoring Site #17, located near the crossing of Elm Creek and Peony Lane, on the Wayzata High School campus in 1998. This site always suffers from low water flow. The banks are heavily eroded with little vegetation, and the substrate is mucky.

For more information about the River Watch Program or to receive the complete report, contact Mary Karius, Hennepin County Environment and Energy, 612-596-9129, [Mary.Karius@hennepin.us](mailto:Mary.Karius@hennepin.us). Or view it on the Hennepin County website, [http://www.hennepin.us/~media/hennepinus/Business/work-with-hennepin-county/environmental-education/RiverWatch\\_2014Report.pdf](http://www.hennepin.us/~media/hennepinus/Business/work-with-hennepin-county/environmental-education/RiverWatch_2014Report.pdf)