

## **Hennepin County River Watch 2017**



Richfield College Experience Program, sampling Nine Mile Creek in Moir Park, Bloomington

## Introduction

The River Watch Program has provided hands-on environmental education to students throughout Hennepin County since 1995. Every spring and fall, students and teachers venture into streams with waders securely fastened and dip nets in hand to collect aquatic macroinvertebrates, or bottom-dwelling, spineless organisms such as mayflies, stoneflies, snails and beetles. Macroinvertebrates are influenced by physical and chemical properties of streams, so monitoring these organisms helps assess water quality. River Watch is an eye-opening experience for all participants, and the resulting data helps us understand the health of our streams. In 2017, 18 stream stretches were monitored in the spring and/or fall. Data was gathered by more than 671 students from 30 classes and 16 schools. Students, teachers and chaperones donated more than 5,000 hours. Thank you to all of you who participated this year!

## YEAR IN REVIEW

2017 was a big year for Hennepin County River Watch! We saw Cindy Jahnke from Brooklyn Park High School mark her **22<sup>nd</sup>** year monitoring Shingle Creek, three new groups join our program monitoring four new sites and the presence of a STONEFLY in Elm Creek! Kaleidoscope Charter School found three individuals of the Perlidae family. GREAT JOB!!!



*Caption: Park Center High School, Cindy Jahnke*





## Data Analysis

- The Family Biotic Index 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 to pollution and good water quality.

### Hilsenhoff Family Biotic Index

Family Biotic Index	Water Quality	Degree of Organic Pollution
0-3.50	Excellent	No apparent organic pollution
3.51-4.50	Very Good	Possible slight organic pollution
4.51-5.50	Good	Some organic pollution probable
5.51-6.50	Fair	Fairly significant organic pollution likely
6.51-7.50	Fairly Poor	Substantial pollution likely
7.51-8.50	Poor	Very substantial pollution likely
8.51-10.0	Very Poor	Severe organic pollution likely



**2017 monitoring groups and results**

Site	School	Teacher	2016 grade	2017 grade	Years monitoring
Rush Creek, Elm Creek tributary at 101 <sup>st</sup> Lane, Maple Grove	Kaleidoscope Charter School, Otsego	Carrie Lynch	6.60 Fairly Poor	4.75 Good	12
Elm Creek at Elm Creek Golf Club	Wayzata High School, Plymouth	Susie Newman	construction	construction	20
Elm Creek at Peony Lane at Wayzata High School	Wayzata High School, Plymouth	Susie Newman	6.1 Fair	8.10 Poor	20
Elm Creek at Maple Grove Senior HS	West Lutheran High School, Plymouth	Steve Merten		6.15 Fair	4

**Historical data**

Historical data for the monitored sites is available on the River Watch interactive map. The map also includes site photos, information about watersheds and land cover data to help investigate how land use may impact water quality.

The map is available at [www.hennepin.us/riverwatch](http://www.hennepin.us/riverwatch).









