

HENNEPIN COUNTY
MINNESOTA

River Watch 2019 Report



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.



Kaleidoscope Charter School

2019 highlights

In 2019, 15 stream stretches were monitored in the spring and/or fall. Data was gathered by more than 500 students from 23 classes and 11 schools. Students, teachers and chaperones donated more than 1300 hours. Thank you to all who participated this year!

In the summer of 2019, a group of 6-9 graders participated in an environmental camp as part of Minnetonka Community Education. The group was led by teachers from the Minnetonka School District, Kim Mehann and Laura Minnis. We spent a rainy morning with the group talking about water resources, water quality and macroinvertebrates at Purgatory Creek. The group also got their waders on and collected invertebrates that they identified in the afternoon. Everyone was a good sport in the rain and we had fun! Their results are included in the section on Purgatory Creek.



Wayzata High School

Data analysis

The grading scale used in River Watch is based on the Hilsenhoff Family Biotic Index, which is one of the most common metrics used for data analysis in volunteer monitoring programs. The Hilsenhoff Family Biotic Index measures the overall community of macroinvertebrates 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



Minnetonka High School at Purgatory Creek

Historic data

Historic 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 hennepin.us/riverwatch.



2019 monitoring groups and results

Nawayee Center School

Minneapolis | Walter Johnson

Bassett Creek Watershed
Morgan Avenue

2019 score	Years monitoring
4.4 Good	New!

Nawayee Center School



Kaleidoscope Charter School

Otsego | Carrie Lynch

Elm Creek Watershed
Rush Creek

2018 score	2019 score	Years monitoring
5.12 Good	6.2 Fair	14

Kaleidoscope Charter School



Minnetonka High School

Dawn Norton/Alison Peterson

Elm Creek Watershed
Rush Creek

2018 score	2019 score	Years monitoring
5.5 Good	5.9 Fair	3

Minnetonka High School



2019 monitoring groups and results

Wayzata High School

Suzie Newman

Elm Creek Watershed

Elm Creek at Peony Lake

2018 score	2019 score	Years monitoring
5.12 Good	6.4 Fair	14

Wayzata High School



Hopkins High School

John Sammler

Minnehaha Creek

Minnehaha at Burwell House

2018 score	2019 score	Years monitoring
6.3 Fair	5.7 Fair	20



Minnehaha Creek

Minnehaha at Hopkins Crossroad

2018 score	2019 score	Years monitoring
7.2 Fairly Poor	7.5 Fairly Poor	4

Nawayee Center School



2019 monitoring groups and results

Benilde St. Margaret

St. Louis Park | John Porisch

Minnehaha Creek
MC-1 Utley Park

2018 score	2019 score	Years monitoring
4.7 Good	4.3 Very Good	21

Benilde St. Margaret



Nawayee Center School

Minneapolis | Walter Johnson

Minnehaha Creek
Below the falls, Minneapolis

2018 score	2019 score	Years monitoring
4.9 Good	5.7 Fair	14

Nawayee Center School at Minnehaha Creek



Edina High School

Alison Ronglein

Nine Mile Creek Watershed
Nine Mile Creek at Nordic Circle

2018 score	2019 score	Years monitoring
6.2 Fair	7.3 Fairly Poor	3

Lab identification at Edina High School



2019 monitoring groups and results

Richfield College Experience Program

Wendy Anderson

Nine Mile Creek Watershed

Nine Mile Harrison Picnic Grounds

2018 score	2019 score	Years monitoring
4.7 Good	4.6 Good	3

RCEP at Nine Mile Creek



Minnetonka Community Ed

Kim Mehann & Laura Minnis

Purgatory Creek

Purgatory Creek at Purgatory Park

2019 score	Years monitoring
4.9 Good	New

Minnetonka Community Ed Group



Minnetonka High School

Dawn Norton/Alison Peterson

Purgatory Creek

Purgatory Creek at Purgatory Park

2019 score	Years monitoring
4.3	Very Good

Minnetonka High School



2019 monitoring groups and results

Park Center High School

Cindy Jahnke and Evan Rowee

Shingle Creek Watershed
Shingle Creek at Park Center
High School

2018 score	2019 score	Years monitoring
5.1 Good	5.1 Good	24

Park Center High School



Avail Academy

Minneapolis | James Vande Glind

Shingle Creek Watershed
Shingle Creek at Webber Park

2018 score	2019 score	Years monitoring
4.5 Very Good	4.3 Very Good	2

Avail Academy

