Friends of the ROUGE

SPRING BUG HUNT

DATA REPORT **2025**

Lauren Eaton,
Monitoring Manager
leaton@therouge.org
734-927-4916

www.therouge.org
650 Church Street
Suite 209
Plymouth, MI 48170
734-927-4904

Rouge River Benthic Monitoring Program
Spring 2025 Report

This report covers benthic macroinvertebrate monitoring at 42 sites on Rouge River tributaries and branches in the spring of 2025. Most sites were sampled during the Spring Bug Hunt on April 12, 2025 where 113 attendees formed 15 teams and sampled 29 sites. Wayne County staff sampled 6 additional sites, and Sue Thompson sampled 4 additional sites. Team Leader training was held on April 5, 2025, and 8 attendees were trained in sampling protocols. A Bug Identification Night was held for Team Leaders on April 23rd, with 9 attendees. FOTR staff and Sue Thompson identified the remaining specimens. Funding for the monitoring was provided by the communities of Beverly Hills, Farmington, Livonia, Northville Township, Novi, Plymouth, Plymouth Township, Southfield, Troy, Birmingham, Washtenaw County Water Resources, Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the United States Environmental Protection Agency's Great Lakes Restoration Initiative, and the Michigan Clean Water Corps (MiCorps).

FRIENDS OF THE ROUGE BENTHIC MONITORING PROGRAM

FOTR's benthic monitoring program was started in 2001 to involve a large number of volunteers in monitoring the health of the watershed by sampling the creeks of the Rouge River. The types and number of benthic macroinvertebrates found can be used to assess water quality. Each team of volunteers samples two sites under the direction of a trained team leader. Samples of each organism are collected and field identifications are verified in the lab.

Understanding Benthic Scores

Stream Quality Index (**SQI**) is determined by weighting each type and number of organisms found by their sensitivity ratings. SQI a measure of the degree of organic pollution that is calculated by rating and scoring organisms based on their sensitivity (sensitive, somewhat sensitive and tolerant) and frequency in the sample (rare or common). A higher proportion of sensitive organisms such as mayflies and caddisflies results in a higher **SQI**. A greater number of different organisms also results in a high **SQI**. Higher scores reflect better quality sites. The **SQI** has four different levels: **>48=EXCELLENT, 34-48=GOOD, 19-33=FAIR, <19=POOR**.

Number of taxa represents the number of different families of organisms. Like SQI, a higher number of taxa indicate a healthier site.

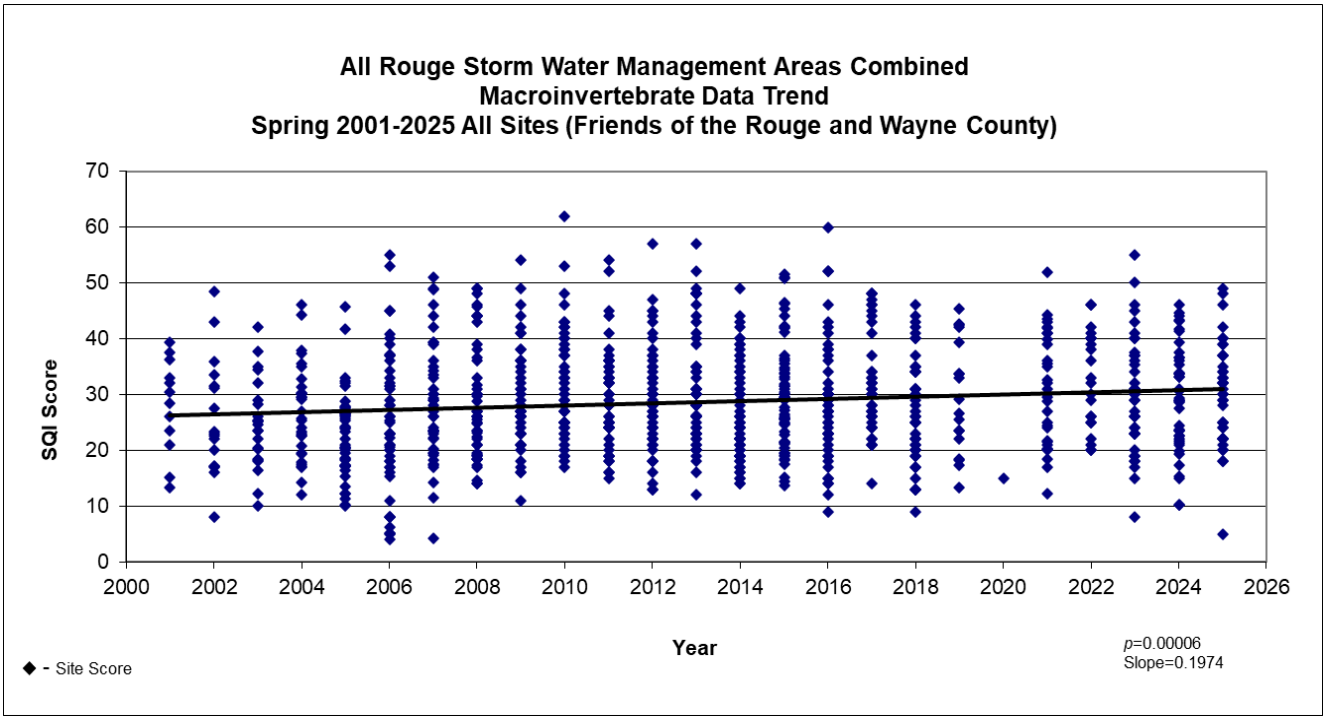
Number of insect taxa – insects are more sensitive than the non-insect taxa.

EPT refers to the number of mayfly, caddisfly and stonefly families found; these three orders contain some of the most sensitive organisms.

WQR – Water Quality Rating is a measure of the degree of organic pollution similar to SQI. Organisms are rated based on the Hilsenhoff Index of Biotic Integrity and scores are weighted by the number of individuals found. Unlike SQI, a LOWER score is indicative of less pollution. There are seven categories rather than four. 0.0-3.50=**Excellent**, 3.51-4.50=**Very Good**, 4.51-5.50=**Good**, 5.51-6.50=**Fair**, 6.51-7.50=**Fairly Poor**, 7.51-8-50=**Poor**, 8.51-10.0=**Very Poor**. WQR is calculated based on family level identification.

Overall Summary:

Stream Quality Index (SQI) averaged 30 or FAIR and the Water Quality Index (WQR) averaged 5.97 FAIR (maps pg. 11-12, Table 6, and graph below). Taxa averaged 13 Families per site, EPT 2, and Chloride 209 ppm (chronic level).
To compare trends over time, we analyzed the trends in SQIs for sites with three or more years of data. When all of the sites were compared, there was a small but significant upward trend in SQIs (see graph below).



SQI Summary:

When looking at SQI trends over time across subwatersheds, Main 1-2 had a significant positive trend. Treated separately or together with the Middle 1 subwatershed, Middle 3 also had a significant positive trend (Table 1, graphs pg. 21-23). No other subwatersheds showed significant trends.

Table 1-FOTR and Wayne County Spring Bug Hunt Summary 2001-2025 SQI					
Branch	**slope**	**p-value**	**True trend**	**Subwatershed average score**	**Stream Quality Index**
Main 1-2	0.1858	0.0301	yes, positive	27	Fair
Main3-4*	-0.1351	0.7504	no trend	25	Fair
Upper	-0.0377	0.6826	no trend	24	Fair
Johnson Creek	-0.0179	0.8730	no trend	38	Good
Middle 1	0.2213	0.0639	no trend	30	Fair
Middle 3	0.4111	0.0283	yes, positive	20	Fair
Lower 1	0.0642	0.5350	no trend	30	Fair
Lower 2	-0.1435	0.3490	no trend	26	Fair
Middle 1 and Middle 3 combined	0.3419	0.0014	yes, positive	27	Fair

***no sites sampled in this subarea spring 2025**

In addition to the trend analysis by subwatershed, a site-by-site analysis of all the sites was done (Table 2). The majority of sites had no trend. Six sites had significant positive trends, and three sites had significant negative trends.

Table 2-Friends of the Rouge and Wayne County Spring Bug Hunt Data Trend 2001-2025 by site SQI					
Site	**slope**	***p*-value**	**Statistically significant trend**	**Site average score**	**Stream Quality Index**
Main5	0.6884	0.0105	yes, positive	28	Fair
Main6	0.6926	0.0246	yes, positive	25	Fair
Bell2	-0.6712	0.0488	yes, negative	25	Fair
MR-23	-1.1124	0.0427	yes, negative	29	Fair
MR-27	-2.1868	0.0464	yes, negative	42	Good
John5	0.6688	0.0167	yes, positive	30	Fair
Nton	0.5919	0.0009	yes, positive	22	Fair
Wall2	0.3535	0.0231	yes, positive	22	Fair
Fel2	0.4883	0.0123	yes, positive	29	Fair

WQR Summary:

In 2021, MiCorps, the organization that oversees monitoring protocols for monitoring groups like ours in Michigan, developed a new scoring system for the bugs to replace the SQI. The new system, called Water Quality Rating (WQR), should better reflect the pollution tolerance of the bugs found at the site. Since there is no way to convert SQI to WQR, FOTR continues to track SQI. The Lower 2 subwatershed has a significantly negative trend (Table 3), however one site demonstrated a positive trend: John8 (Table 4). This site had a GOOD WQR score.

Table 3-FOTR and Wayne County Spring Bug Hunt Trend Summary 2023-2025 WQR

Branch	slope	p-value	True trend	Average score	Water Quality Rating (WQR)
Main 1/2	-0.1425	0.6383	no trend	6.29	Fair
Upper	-0.1388	0.7814	no trend	6.41	Fair
Johnson Creek	0.2325	0.0767	no trend	5.81	Fair
Middle 1	0.2488	0.3064	no trend	5.97	Fair
Lower 1	0.0933	0.7401	no trend	5.92	Fair
Lower 2	-0.3225	0.0261	yes, negative	5.84	Fair
All subwatersheds	-0.0474	0.6839	no trend	6.06	Fair

***No sites sampled in Main 3/4 in 2025. Middle 3 sites did not have enough data for trends**

Table 4-Friends of the Rouge and Wayne County Spring Bug Hunt Data Trend 2003-2025 by site WQR					
Site	**slope**	***p*-value**	**Statistically significant trend**	**Site average score**	**Water Quality rating (WQR)**
Evan2	0.0700	0.9031	no trend	6.47	Fair
Main1	0.1900	0.0770	no trend	6.82	Fairly Poor
Nott	-0.4750	0.3275	no trend	6.69	Fairly Poor
Sprag	-0.3550	0.5885	no trend	5.16	Good
Bell1	0.0050	0.9268	no trend	5.92	Fair
Bell2	-0.2400	0.9048	no trend	8.16	Poor
Bell3	-0.4750	0.3505	no trend	6.20	Fair
Up2	0.1550	0.5963	no trend	5.39	Good
MR-22	0.2250	0.6785	no trend	5.83	Fair
MR-23	0.3300	0.4878	no trend	5.88	Fair
John1	0.5900	0.0989	no trend	6.46	Fair
John2	0.1100	0.7450	no trend	5.73	Fair
John3	0.0400	0.4543	no trend	5.94	Fair
John8	0.1000	0.0000	yes, positive	5.40	Good
Ing1	0.1800	0.1012	no trend	6.10	Fair
Bish2	-0.3100	0.3760	no trend	5.24	Good
Nton	-0.4700	0.6460	no trend	6.09	Fair
Ton1	-0.3950	0.4339	no trend	6.42	Fair
Fowl1	0.6500	0.6259	no trend	5.87	Fair
Fowl2	-0.1450	0.5288	no trend	6.11	Fair
Fel2	-0.2250	0.1210	no trend	5.78	Fair
LR-1	-0.2900	0.2940	no trend	5.74	Fair
LR-3	-0.3550	0.2049	no trend	5.94	Fair

Friends of the Rouge

SALT WATCH™
IZAAK WALTON LEAGUE OF AMERICA

Since 2020, we have been testing sites for road salt (chloride) through the Izaak Walton League's Salt Watch program during the Stonefly Search and Bug Hunts. Salt we apply to our roads and sidewalks for snow and ice removal washes into our streams and is toxic to aquatic life when it reaches high levels. Recognizing this, (EGLE) set water quality values aiming to protect surface water from chloride, based on parts per million (ppm) concentrations.

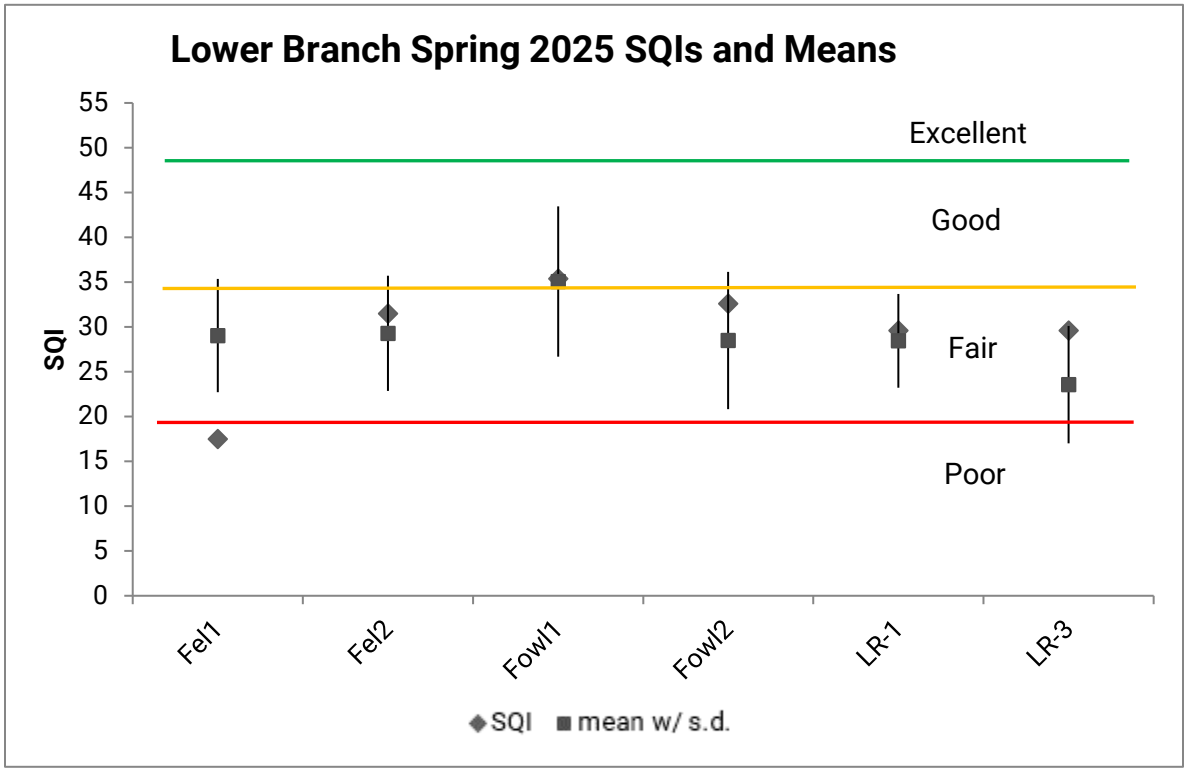
These are:
150 ppm and above - causes long term effects to aquatic life (chronic)
320 ppm and above - causes acute effects to aquatic life (toxic)

This spring, twelve sites had toxic levels of chloride, and thirteen had chronic levels of chloride (table 5, map pg. 13).

Table 5: Spring 2025 Sites With Elevated Chloride Levels

BRANCH	Stream Name	FIELDID	Site Description	Cl ppm	Cl Rating
Lower	Lower Rouge	LR-3	Goudy Park	200	chronic
Main	Evans Creek	Evan2	LTU	612	toxic
Main	Main Rouge	Main1	Firefighters Park	166	chronic
Main	Main Rouge	Main3	Quarton at Lakeside	197	chronic
Main	Main Rouge	Main4	Booth Park	248	chronic
Main	Main Rouge	Main4.5	Birmingham	248	chronic
Main	Main Rouge	Main5	Douglas Evans	213	chronic
Main	Main Rouge	Main6	Southfield Civic Center	231	chronic
Main	Nottingham Creek	Nott	Country Day Middle School	231	chronic
Main	Sprague Creek	Sprag	Lloyd Stage Nature Center	231	chronic
Middle	Bishop Creek	Bish2	Bishop Scarborough	>612	toxic
Middle	Ingersoll Creek	Ing1	Brookfarm Park	404	toxic
Middle	Middle Rouge	MR-1	Northville Rec	242	chronic
Middle	Middle Rouge	MR-2	Reservoir Rd	242	chronic
Middle	Middle Rouge	MR-4	Levan Knoll	280	chronic
Middle	Middle Rouge	MR-18	Springbrook Rec	346	toxic
Middle	Tonquish Creek	Nton	S Evergreen St	267	chronic
Middle	Tonquish Creek	Ton2	Ann Arbor Rd	330	toxic
Middle	Walled Lake Drainage	Wall1	Rotary Park	432	toxic
Middle	Walled Lake Drainage	Wall2	10 Mile	353	toxic
Upper	Bell Branch	Bell1	Bicentennial Park	378	toxic
Upper	Bell Branch	Bell2	Schoolcraft College	353	toxic
Upper	Bell Branch	Bell3	Livonia 6 Mile	330	toxic
Upper	Seeley Creek	See3	Kennedy Court	378	toxic
Upper	Upper Rouge	Up2	Shiawasee Park	320	toxic

Lower Branch



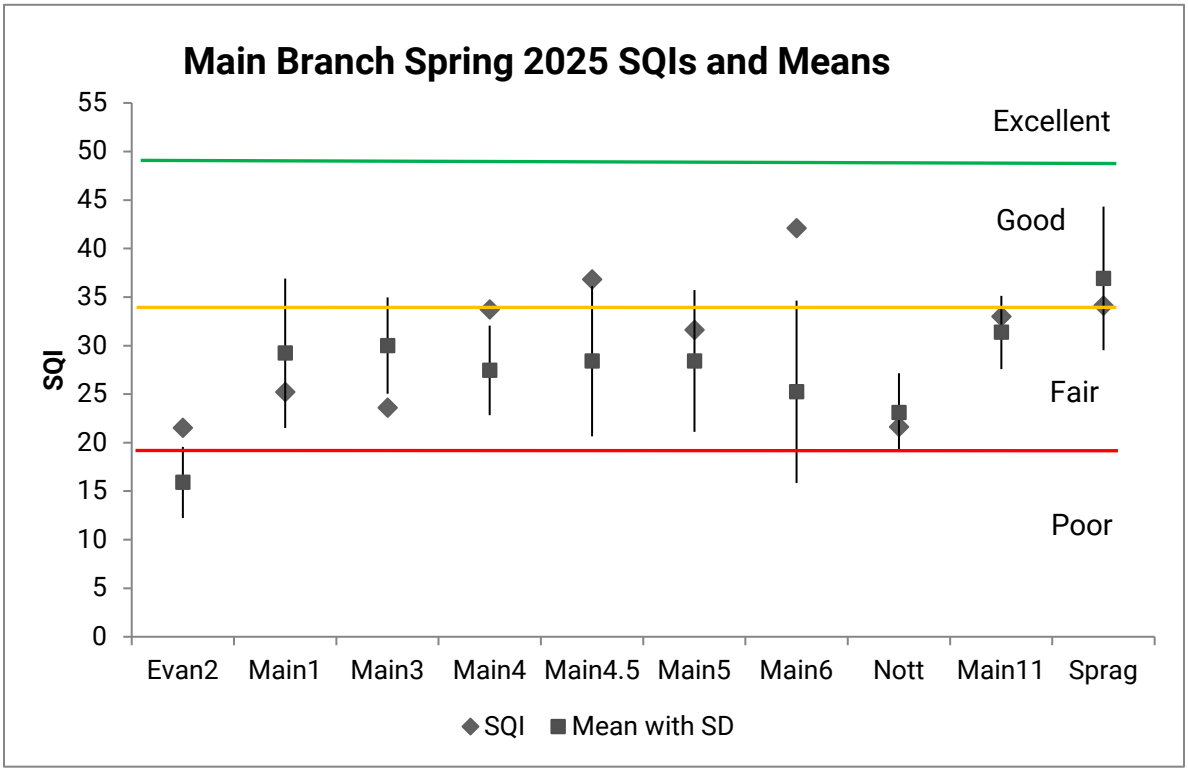
Six sites were sampled on the Lower Branch (Table 6, pg. 17-18), including two tributaries: Fellows and Fowler Creeks. SQIs averaged FAIR (29). One sites had a GOOD SQI, four sites had FAIR SQIs, and one site had a POOR SQI. Site scores calculated using the WQR system averaged fair (6.23). According to the WQR scoring, five sites were FAIR, and one was POOR. Sites had an average of 13 taxa, and 2 EPT taxa.

Chloride levels ranged from a low of 30 ppm at Fowl1 to a high of 200 ppm at LR-3; one site had chronic level (LR-3) with no sites at the toxic level (Table 5, map pg. 13).

SQI scores were compared with past data (graph above). Five were within a standard deviation of the average for the site, and one was below (Fel1).

Long term trend analysis showed no significant trends for the Lower 1 and for all of the Lower when the subwatersheds are combined (Table 1, graphs pg. 20). Fel2 had a significant positive trend (Table 2).

Main Branch

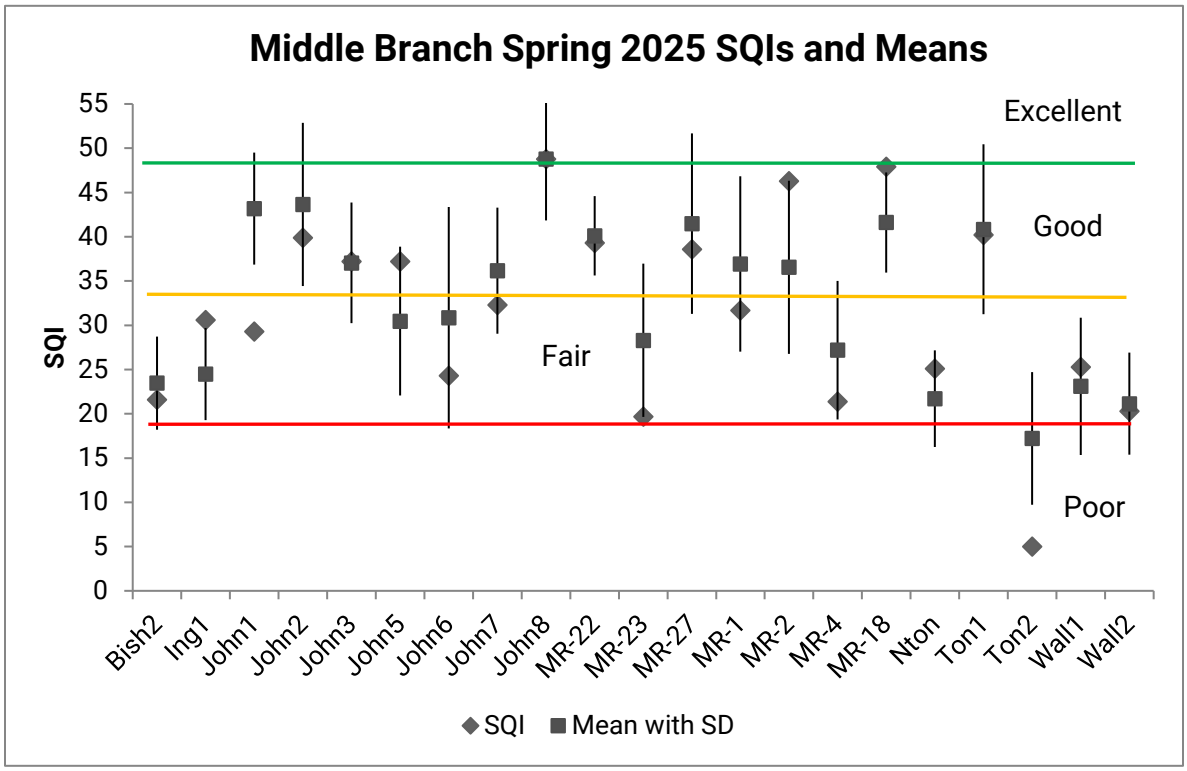


Ten sites on the Main Branch were sampled, including the following tributaries: Evans, Nottingham, Quarton, and Sprague Creek. SQIs averaged FAIR (30). Four sites rated GOOD, and six FAIR. WQRs averaged FAIR (6.03). One site rated GOOD, eight rated FAIR, and one rated FAIRLY POOR. Taxa averaged 13 and 2 EPT. Chloride levels averaged 248 ppm, and most sites were at the chronic effects level (>150 ppm), with one site at the toxic level (Evan2) (Table 5).

SQI scores were compared with past data (graph above). Five were within a standard deviation of the average for the site, four were above, and one was below.

Long term trend analysis shows a significant positive trend for the Main 1-2 subwatersheds (Table 1, graphs pg. 21). Main5 and Main6 had significant positive trends (Table 2).

Middle Branch

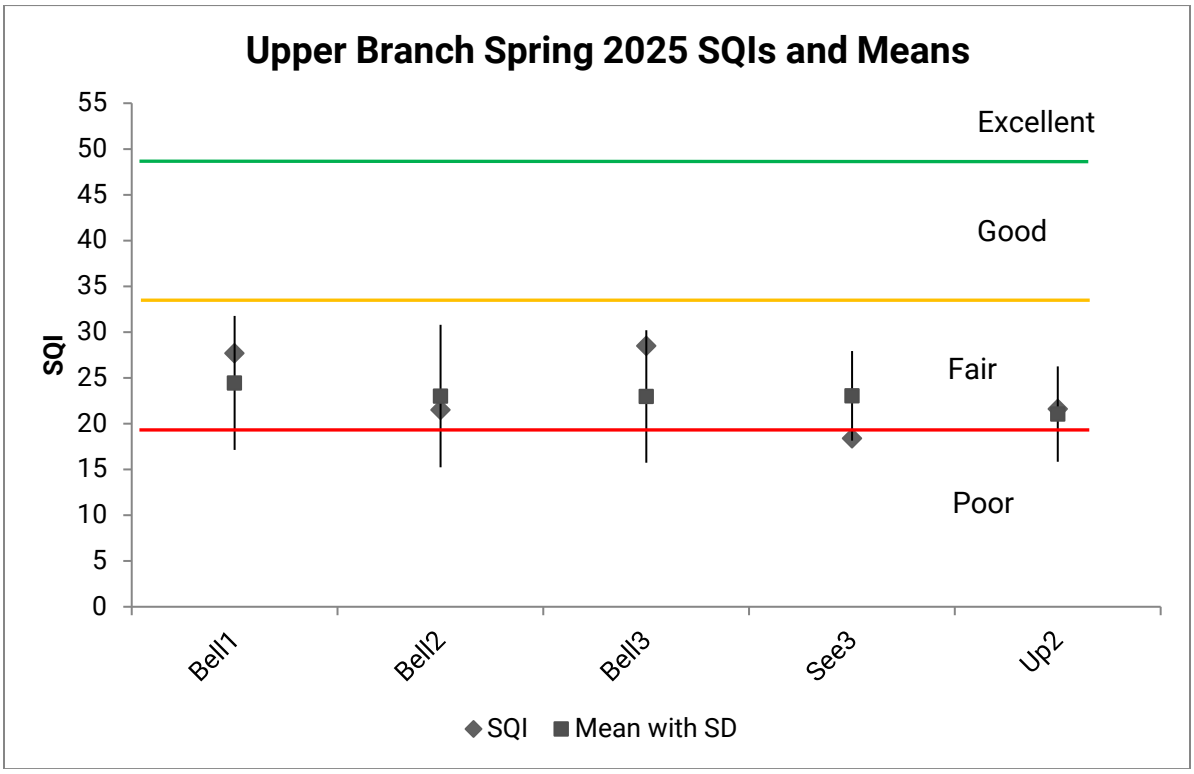


Twenty-one sites were sampled on the Middle Branch and six of its tributaries. Ten sites were sampled on Johnson Creek, one on Bishop Creek, three on Tonquish Creek, one on Ingersoll Creek, and two Walled Lake Drainage sites. The final four sites were in the Middle Rouge. SQI scores averaged FAIR (32). One site SQI was EXCELLENT, eight were GOOD, eleven FAIR and one POOR. WQRs averaged fair (5.93). Five sites had GOOD WQRs, fourteen were FAIR, and two were FAIRLY POOR. Taxa averaged 13, and EPT averaged 2.

In comparing averages and past data (graph above), the majority of sites (17) were within a standard deviation of the average for the sites. Two sites were above (Ing1 and MR-18) and two sites were below (John1 and Ton2). Chloride levels averaged 187 ppm (chronic) and four sites were at the toxic level (Table 5).

In long term trend analysis, the Middle 3 subwatershed had a positive trend, and when the Middle 1 and Middle 3 subwatersheds were combined, there was also a significant positive trend (Table 1, graphs pg. 22-23). John5, Nton, and Wall2 all had a positive trends when considered by site, whereas MR-23, and MR-27 all had negative trends (Table 2).

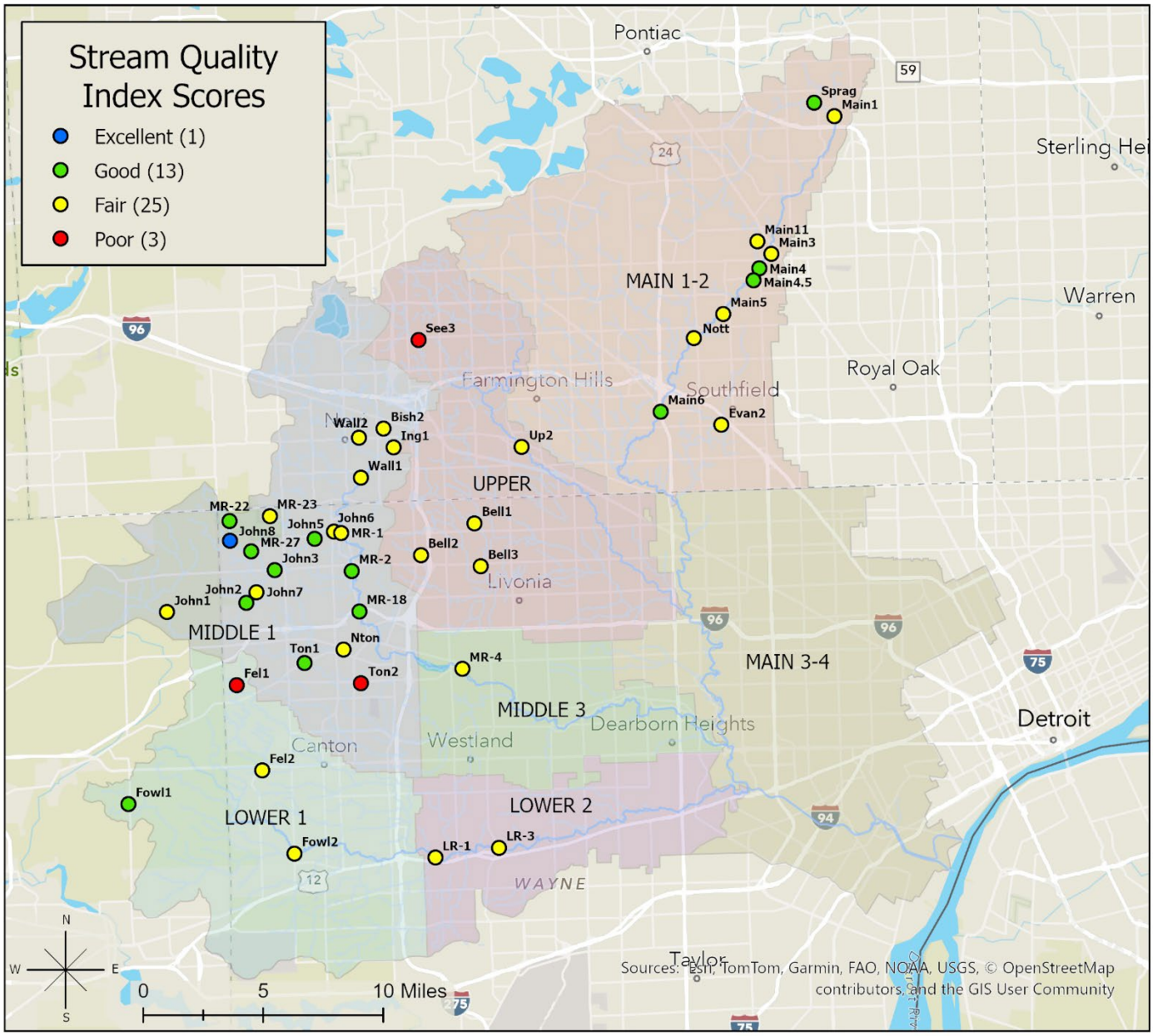
Upper Branch

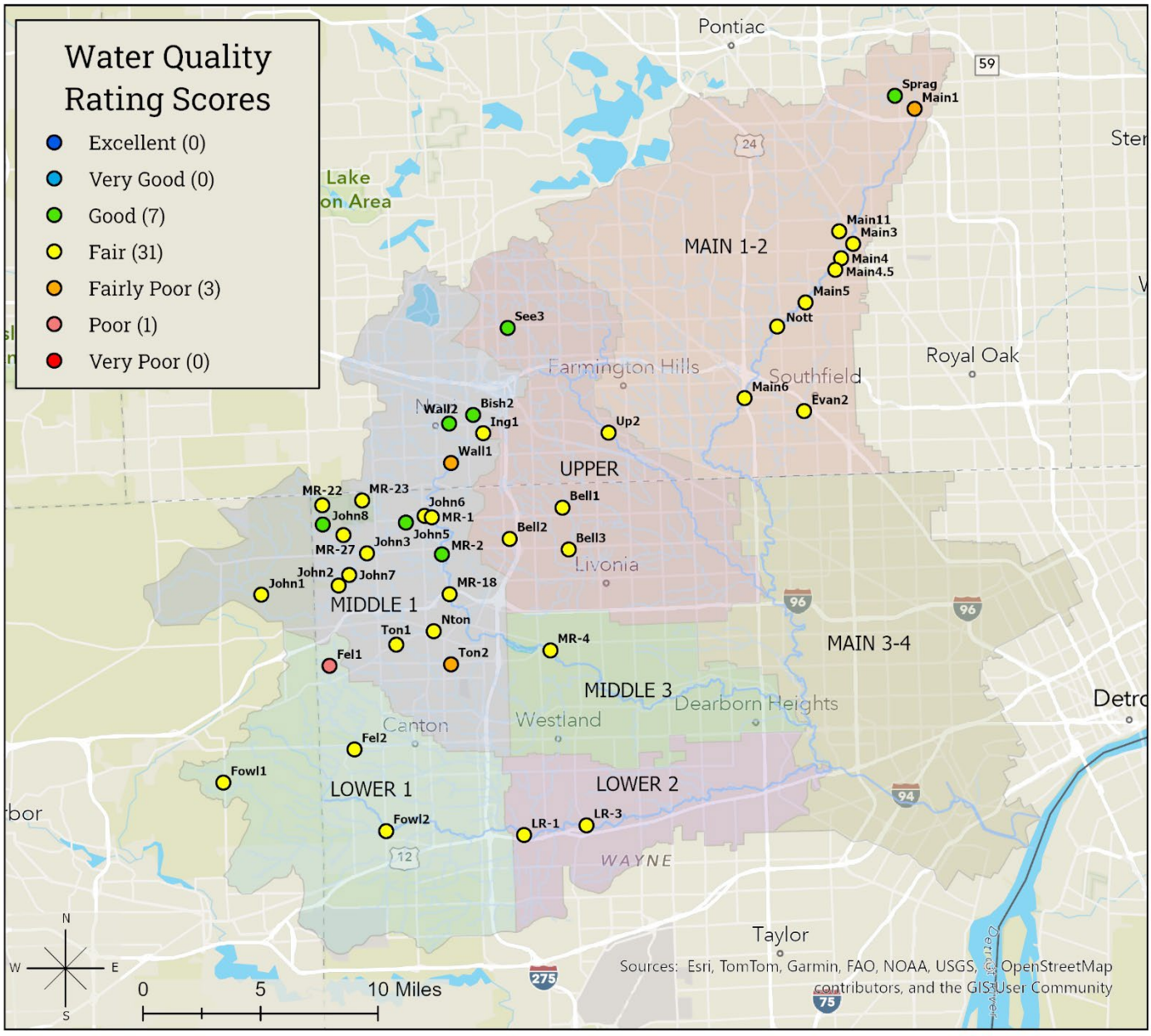


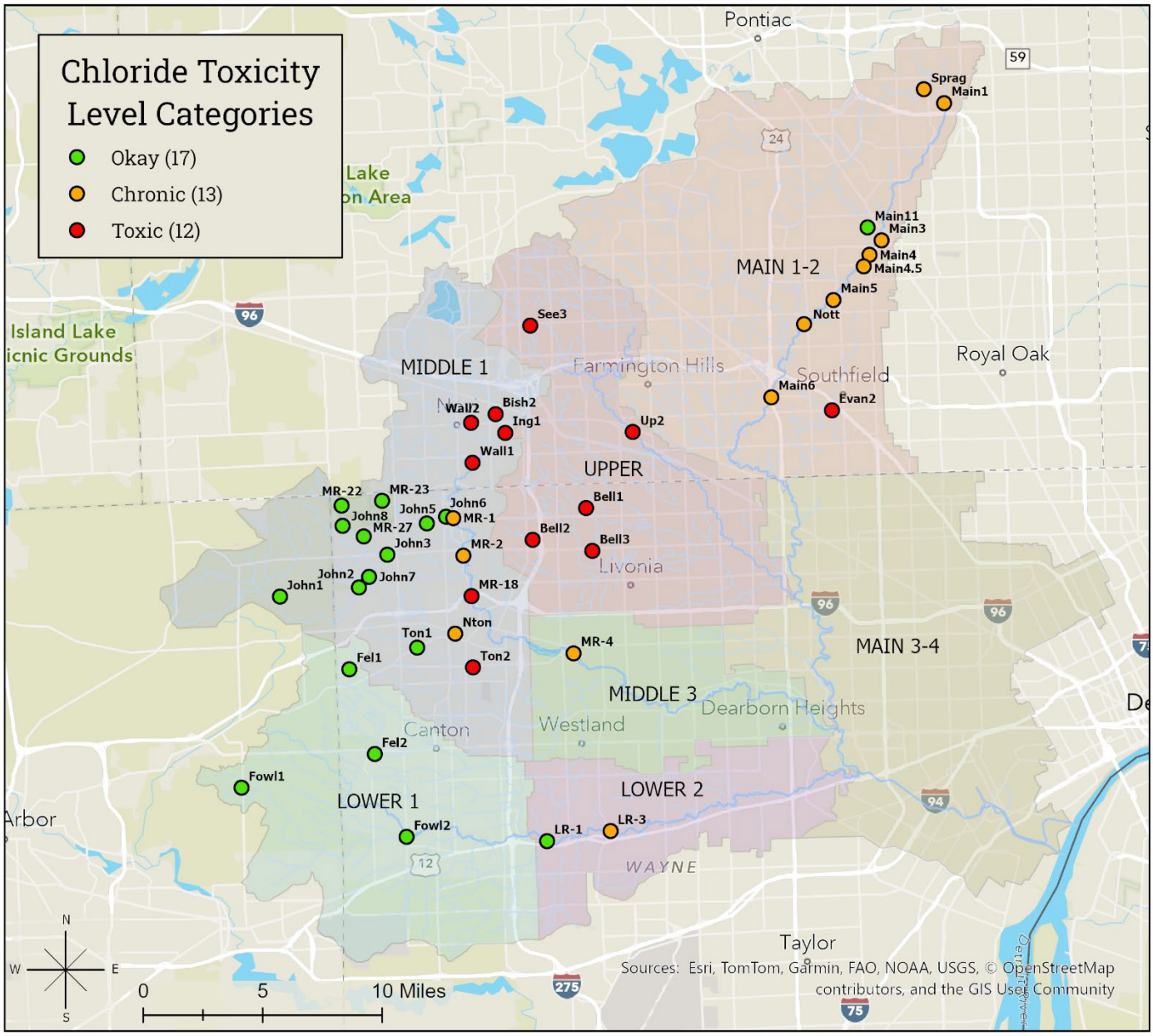
Five Upper branch sites were sampled including three sites on the Bell Creek tributary, one on Seeley Creek, and one on the Upper Rouge at Shiawassee Park. SQIs averaged FAIR (24). Four sites were FAIR, and one was POOR. WQR averaged fair (5.9). One site had a GOOD WQR, three FAIR, and one FAIRLY POOR. Taxa averaged 11, and EPT averaged 1.

In comparing averages and past data (graph above), all sites were within the standard deviation of the average for a given site. Chloride levels averaged 352 ppm (chronic) and all five sites were at the chronic level (Table 5).

Long term trend analysis shows no trend for the Upper Branch subwatershed (Table 1, graph pg. 24), however when looking at individual sites, Bell2 had a significant negative trend (Table 2).


Stream Quality Index Scores
Excellent (1)
Good (13)
Fair (25)
Poor (3)
Pontiac
Sterling Hei
Warren
Royal Oak
Farmington Hills
Southfield
Livonia
Dearborn Heights
Detroit
Canton
Westland
Taylor
WAYNE
MAIN 1-2
MAIN 3-4
UPPER
MIDDLE 1
MIDDLE 3
LOWER 1
LOWER 2
Sprag
Main1
Main11
Main3
Main4
Main4.5
Main5
Nott
Main6
Evan2
See3
Wall2
Bish2
Ing1
Up2
Wall1
Bell1
Bell2
Bell3
MR-22
MR-23
John8
John5
John6
MR-1
MR-27
John3
MR-2
John2
John7
John1
MR-18
Nton
Ton1
Ton2
MR-4
Fel1
Fel2
Fowl1
Fowl2
LR-1
LR-3
N
W
E
S
0
5
10 Miles
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community


Water Quality Rating Scores
Excellent (0)
Very Good (0)
Good (7)
Fair (31)
Fairly Poor (3)
Poor (1)
Very Poor (0)
Pontiac
Lake
on Area
MAIN 1-2
Sprag
Main1
Main11
Main3
Main4
Main4.5
Main5
Nott
Main6
Evan2
See3
Farmington Hills
Southfield
Royal Oak
Wall2
Bish2
Ing1
Wall1
Up2
UPPER
MR-22
MR-23
John8
John6
MR-1
John5
John3
MR-27
MR-2
Bell1
Bell2
Bell3
Livonia
John2
John7
John1
MR-18
MIDDLE 1
Ton1
Nton
Fel1
Ton2
MR-4
MAIN 3-4
MIDDLE 3
Dearborn Heights
Canton
Westland
Fel2
Fowl1
LOWER 1
LOWER 2
Fowl2
LR-1
LR-3
WAYNE
Taylor
N
W
E
S
0
5
10 Miles
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community


Chloride Toxicity Level Categories
Okay (17)
Chronic (13)
Toxic (12)
Pontiac
Lake
on Area
Island Lake
icnic Grounds
Sprag
Main1
Main11
Main3
Main4
Main4.5
Main5
Nott
MAIN 1-2
See3
MIDDLE 1
Farmington Hills
Southfield
Royal Oak
Main6
Evan2
Wall2
Bish2
Ing1
Up2
Wall1
UPPER
MR-22
MR-23
John8
John5
John6
MR-1
MR-27
John3
MR-2
Bell1
Bell2
Bell3
Livonia
John2
John7
John1
MR-18
Nton
Ton1
Fel1
Ton2
MR-4
MAIN 3-4
MIDDLE 3
Dearborn Heights
Canton
Westland
Fel2
Fowl1
LOWER 1
LOWER 2
Fowl2
LR-1
LR-3
WAYNE
Taylor
N
W
E
S
0
5
10 Miles
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Thank you to all the **volunteers** and **Team Leaders, Wayne County Department of Public Services for providing bug hunt team leaders, sampling additional sites, and other technical support**, **Sue Thompson** for sampling additional sites, identifying difficult specimens, and helping create the report. Thank you to **Deirdre Devlin**, and **Lawrence Tech** staff and students for sampling sites.

Funding for the event was provided by the communities of Beverly Hills, Birmingham, Farmington, Livonia, Northville Township, Novi, Plymouth, Plymouth Township, Southfield, Troy, Washtenaw County Water Resources, Michigan Department of Environment, Great Lakes, and Energy and the United States Environmental Protection Agency's Great Lakes Restoration Initiative, the Alliance of Rouge Communities, and the Michigan Clean Water Corps.

Please mark your calendars for the 2025 Fall Bug Hunt Oct. 12, 2025 10 am-4 pm

Volunteers meet at 10am at the Plymouth Arts and Recreation Building Jack Wilcox Theater. There will be an indoor welcome from 10am-11am where volunteers will have a chance to meet their team, enjoy refreshments (coffee, juice, bagels, and donuts), and watch a short presentation before heading out to two sites throughout the watershed. Ending times for each team will vary, but most teams should be able to finish by 3pm.

Holding it this way means people can meet all of the rest of the volunteers and it makes it easier for us to make adjustments so that each team has enough volunteers. For those who would rather meet in the field, that can still be arranged.

Please mark your calendars for the Fall Team Leader Training Sept. 27th, 2025 9 am-1 pm

(must have participated in a previous event)

We are always in need of people willing to train and act as Team Leaders for Bug Hunts and Stonefly Searches. If you have attended an event before and would like to train to become a team leader, please join us for the fall training.

Table 6: 2025 Spring Bug Hunt Sampling Sites										
Lower Branch										
Stream Name	FIELDID	Site Description	WQR	WQR Rating	SQI	SQI Rating	Taxa	EPT	Chloride (ppm)	Chloride Rating
Fellows Creek	Fel1	Top of Hill Ct	8.28	Poor	18	Poor	10	1	82	OK
Fellows Creek	Fel2	Vintage Valley	5.58	Fair	32	Fair	12	2	82	OK
Fowler Creek	Fowl1	Prospect	6	Fair	35	Good	16	3	30	OK
Fowler Creek	Fowl2	Fowler Beck	6.35	Fair	33	Fair	14	2	49	OK
Lower Rouge	LR-1	Commerce Ct	5.53	Fair	30	Fair	12	2	145	OK
Lower Rouge	LR-3	Goudy Park	5.66	Fair	30	Fair	11	2	200	Chronic
Average			**6.23**	**Fair**	**29**	**Fair**	**13**	**2**	**98**	**OK**
Main Branch										
Stream Name	FIELDID	Site Description	WQR	WQR Rating	SQI	SQI Rating	Taxa	EPT	Chloride	Chloride Rating
Evans Creek	Evan2	LTU	6.28	Fair	22	Fair	8	1	612	Toxic
Main Rouge	Main1	Firefighters Park	7	Fairly Poor	25	Fair	9	2	166	Chronic
Main Rouge	Main3	Quarton at Lakeside	6.42	Fair	24	Fair	9	1	197	Chronic
Main Rouge	Main4	Booth Park	5.58	Fair	34	Good	14	2	248	Chronic
Main Rouge	Main4.5	Birmingham	6.38	Fair	37	Good	16	2	248	Chronic
Main Rouge	Main5	Douglas Evans	5.99	Fair	32	Fair	13	2	213	Chronic
Main Rouge	Main6	Southfield Civic Center	6.06	Fair	42	Good	18	3	231	Chronic
Nottingham Creek	Nott	Country Day Middle School	6.06	Fair	22	Fair	11	1	231	Chronic
Quarton Branch	Main11	Fairway Park	6.02	Fair	33	Fair	13	3	102	Ok
Sprague Creek	Sprag	Lloyd Stage Nature Center	4.53	Good	34	Good	14	3	231	Chronic
Average			**6.03**	**Fair**	**30**	**Fair**	**13**	**2**	**248**	**Chronic**

Table 6 continued: 2025 Spring Bug Hunt Sampling Sites

Middle Branch

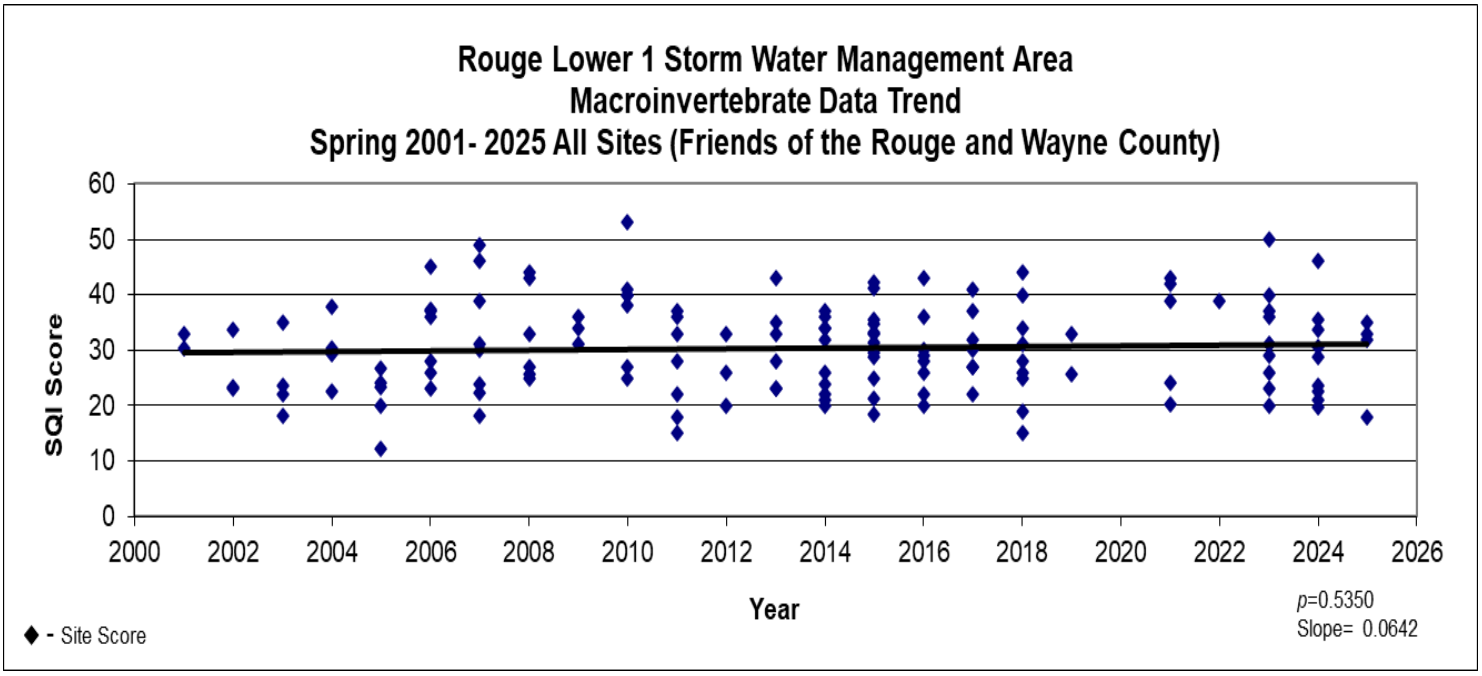
Stream Name	FIELDID	Site Description	WQR	WQR Rating	SQI	SQI Rating	Taxa	EPT	Chloride	Chloride Rating
Bishop Creek	Bish2	Bishop Scarborough	5.05	Good	22	Fair	10	1	>612	Toxic
Ingersoll Creek	Ing1	Brookfarm Park	5.91	Fair	31	Fair	13	1	404	Toxic
Johnson Creek	John1	5M Salem	6	Fair	29	Fair	14	4	49	Ok
Johnson Creek	John2	5M NV	5.69	Fair	40	Good	18	4	56	Ok
Johnson Creek	John3	6M NV	6	Fair	37	Good	15	4	56	Ok
Johnson Creek	John5	Fish Hatchery Park	5.47	Good	37	Good	14	3	73	Ok
Johnson Creek	John6	7 Mile & Hines	5.77	Fair	24	Fair	10	2	82	Ok
Johnson Creek	John7	Arcadia Ridge subdivision	6.1	Fair	32	Fair	11	3	56	Ok
Johnson Creek	John8	Maybury Angell	5.5	Good	49	Excellent	20	3	101	Ok
Johnson Creek	MR-22	Maybury south	5.82	Fair	39	Good	20	1	81	Ok
Johnson Creek	MR-23	Maybury north	6.03	Fair	20	Fair	10	0	81	Ok
Johnson Creek	MR-27	Ridge	5.71	Fair	39	Good	15	3	81	Ok
Middle Rouge	MR-1	Northville Rec	5.68	Fair	32	Fair	12	1	242	Chronic
Middle Rouge	MR-2	Reservoir Rd	5.48	Good	46	Good	18	5	242	Chronic
Middle Rouge	MR-4	Levan Knoll	6.42	Fair	21	Fair	11	2	280	Chronic
Middle Rouge	MR-18	Springbrook Rec	6.17	Fair	48	Good	20	3	346	Toxic
Tonquish Creek	Nton	S Evergreen St	6.06	Fair	25	Fair	9	1	267	Chronic
Tonquish Creek	Ton1	Plymouth Twp Park	6.21	Fair	40	Good	19	2	131	Ok
Tonquish Creek	Ton2	Ann Arbor Rd	7.15	Fairly Poor	5	Poor	3	0	330	Toxic
Walled Lake Drainage	Wall1	Rotary Park	7	Fairly Poor	25	Fair	10	2	432	Toxic
Walled Lake Drainage	Wall2	10 Mile	5.41	Good	20	Fair	8	1	353	Toxic
Average			**5.93**	**Fair**	**32**	**FAIR**	**13**	**2**	**187**	**Chronic**

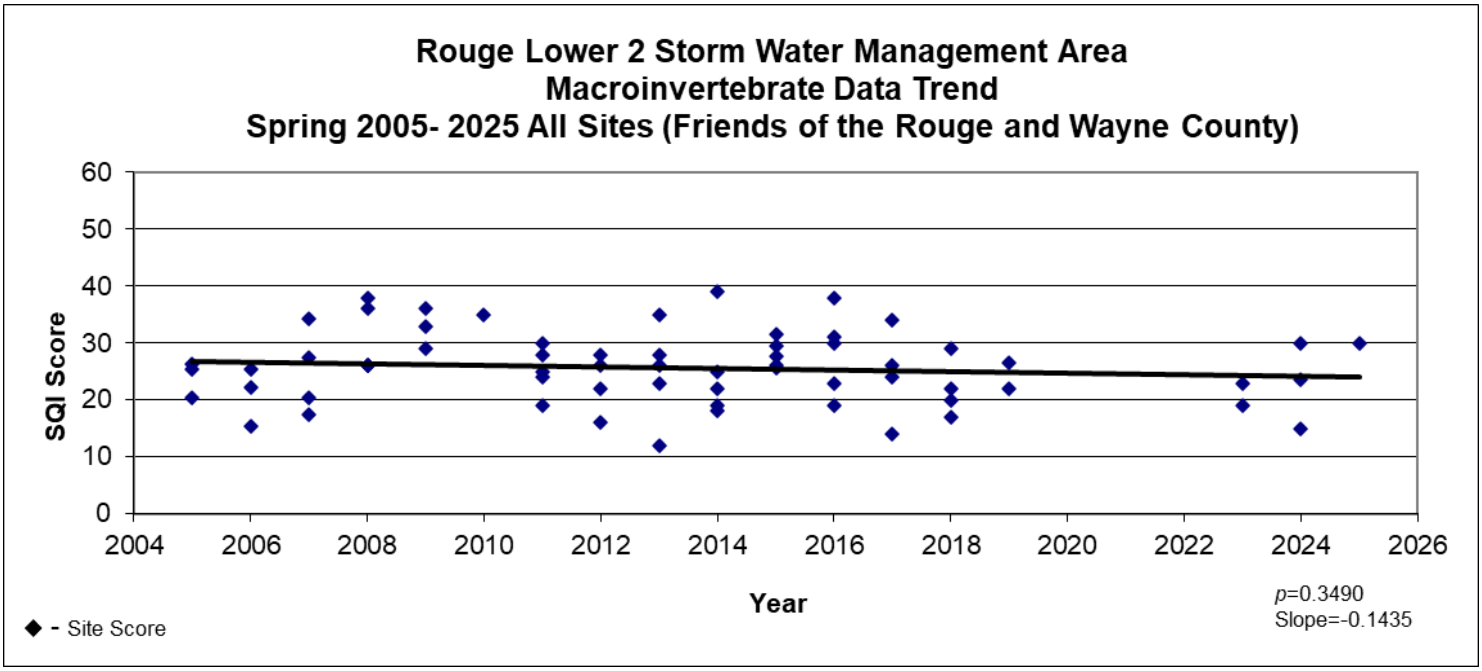
Upper Branch

Stream Name	FIELDID	Site Description	WQR	WQR Rating	SQI	SQI Rating	Taxa	EPT	Chloride	Chloride Rating
Bell Branch	Bell1	Bicentennial Park	5.9	Fair	28	Fair	14	0	378	Toxic
Bell Branch	Bell2	Schoolcraft College	7	Fairly Poor	22	Fair	10	1	353	Toxic
Bell Branch	Bell3	Livonia 6 Mile	5.89	Fair	29	Fair	12	0	330	Toxic
Seeley Creek	See3	Kennedy Court	5.04	Good	18	Poor	10	1	378	Toxic
Upper Rouge	Up2	Shiawasee Park	5.67	Fair	22	Fair	10	1	320	Toxic
Average			**5.90**	**Fair**	**24**	**FAIR**	**11**	**1**	**352**	**Toxic**

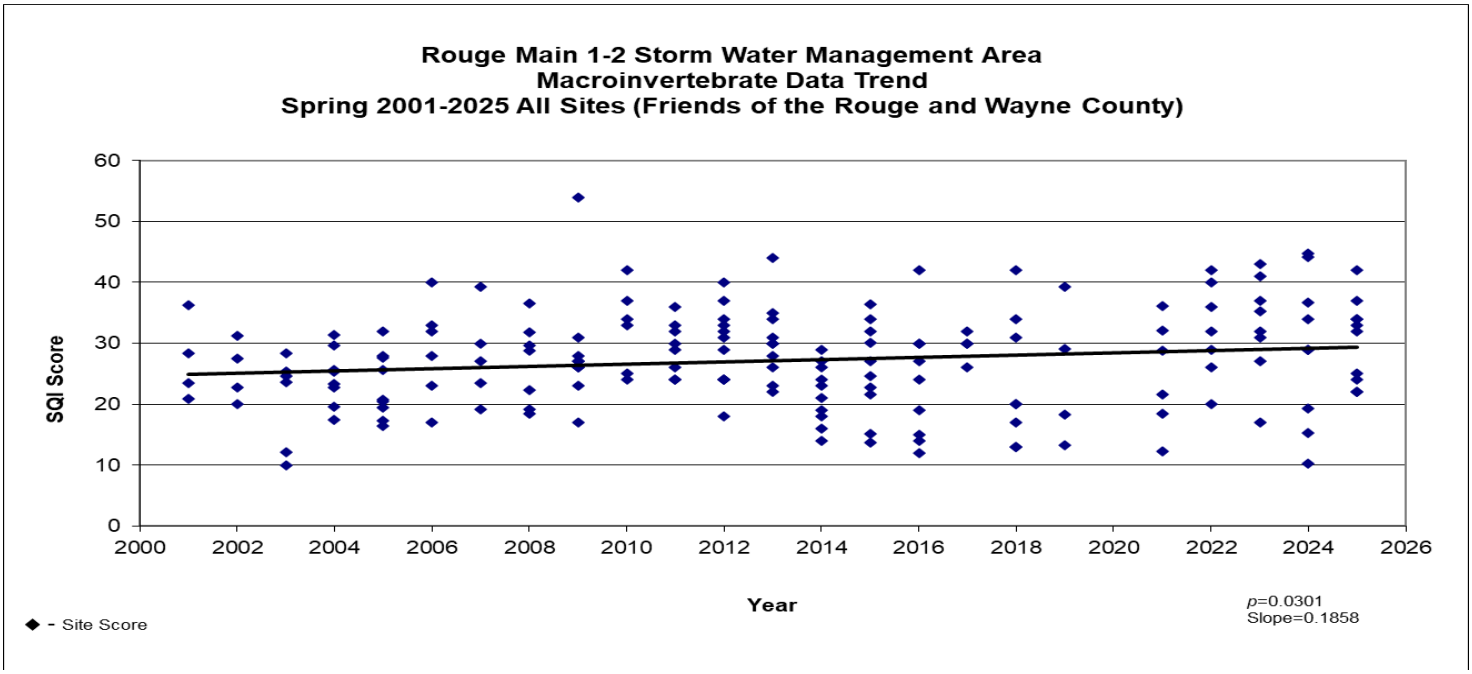
Trend Graphs

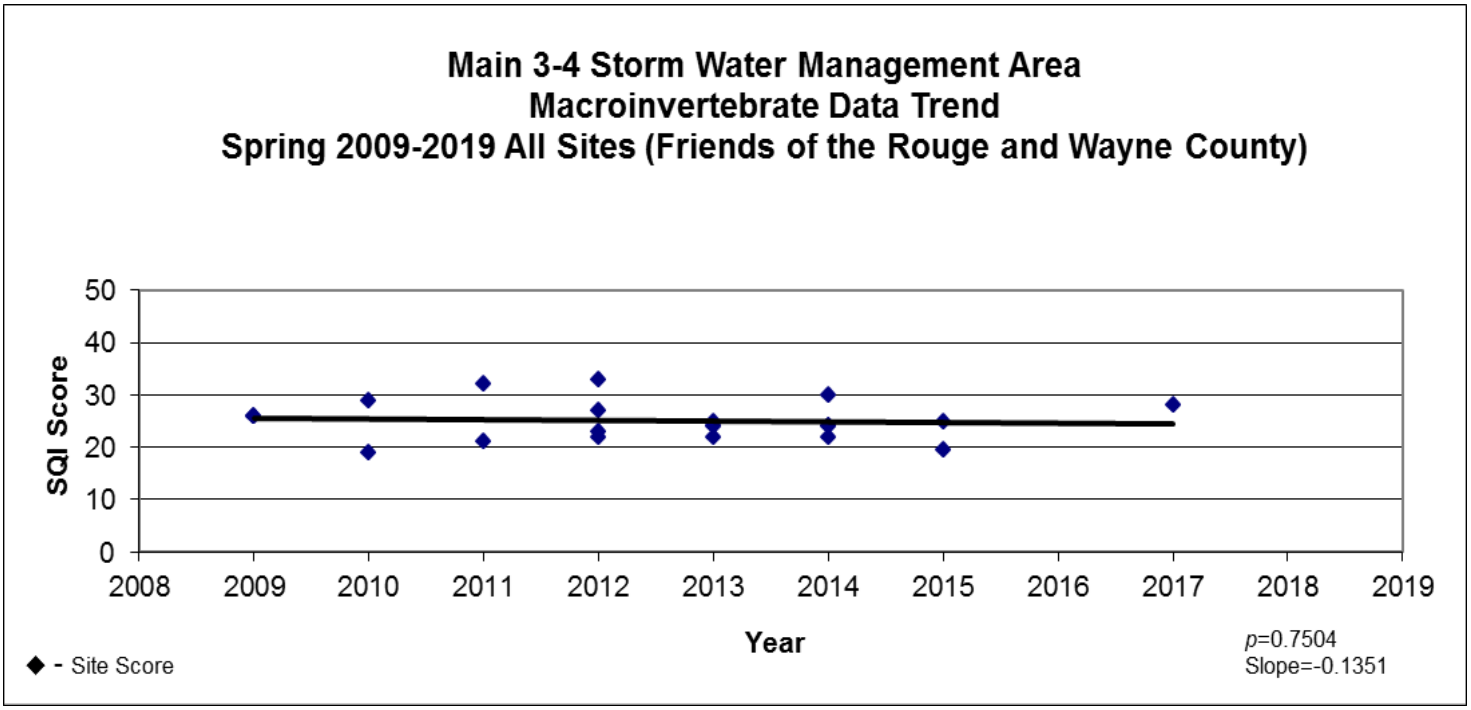
Lower Branch





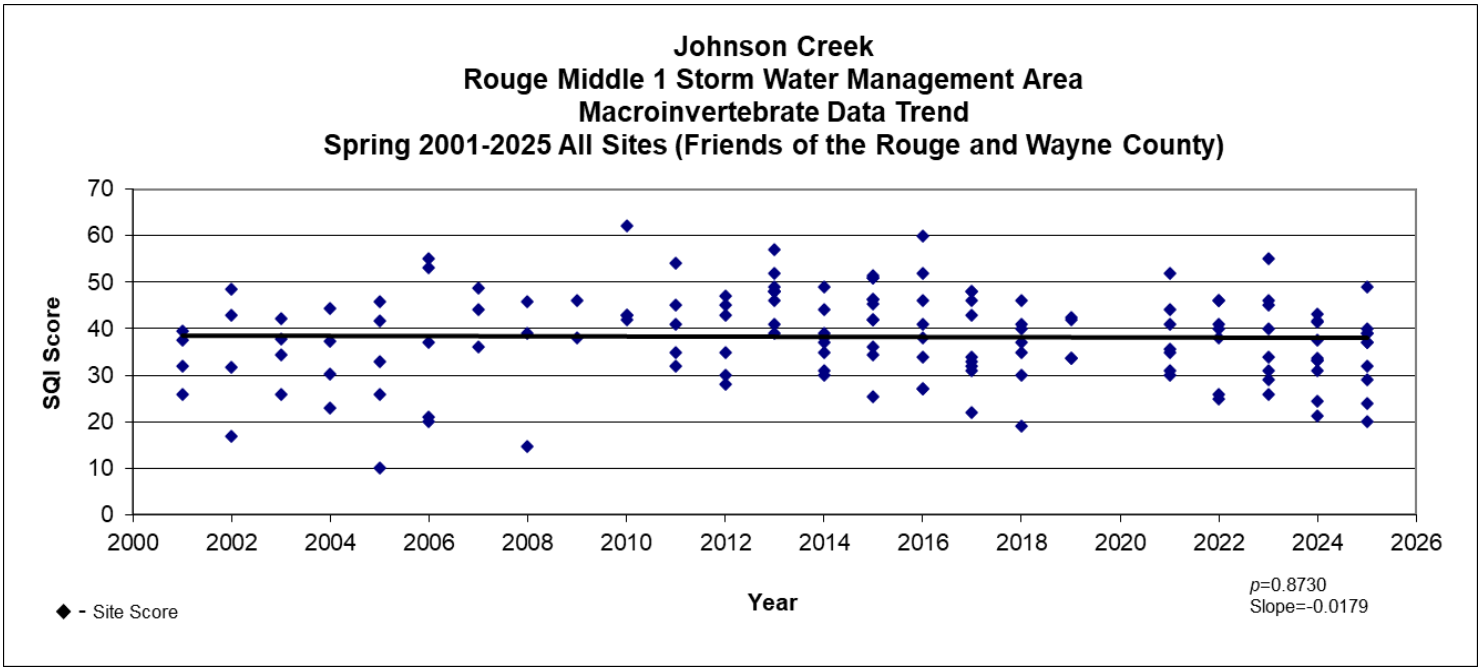
Main Branch

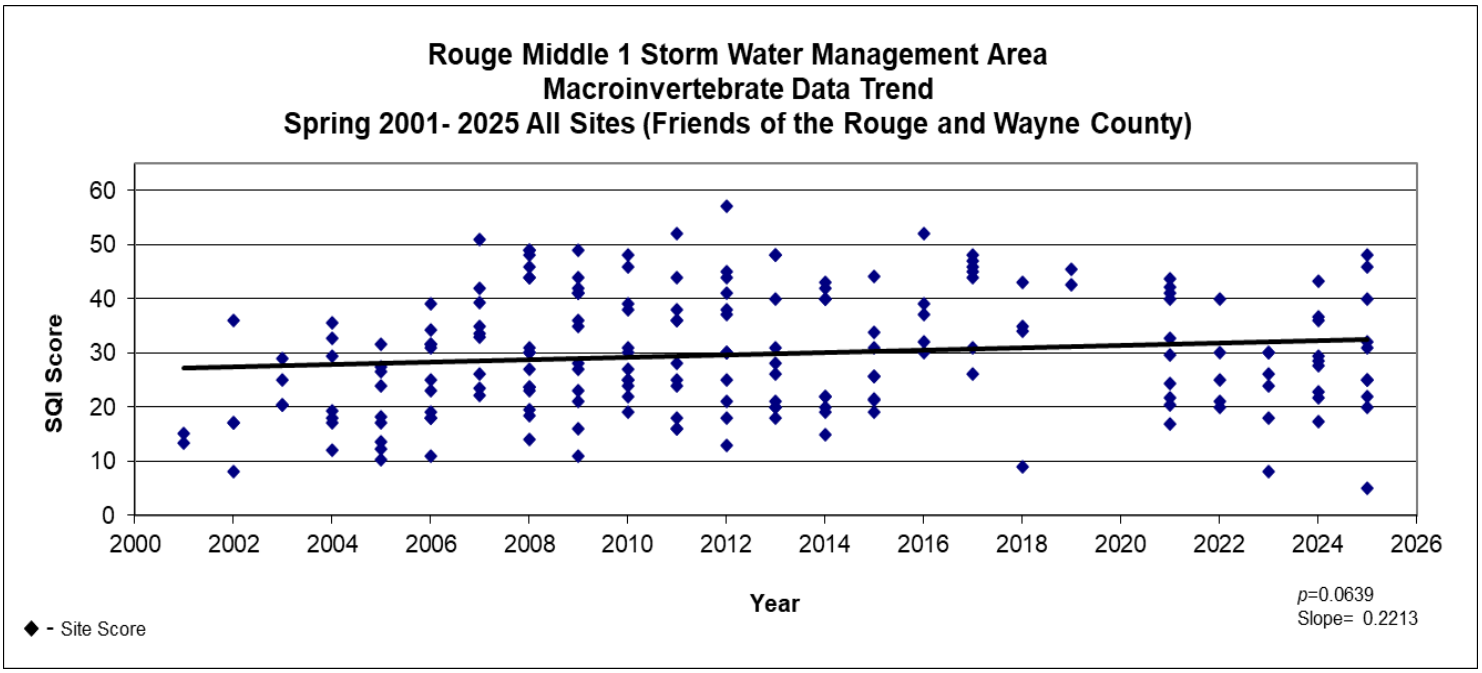


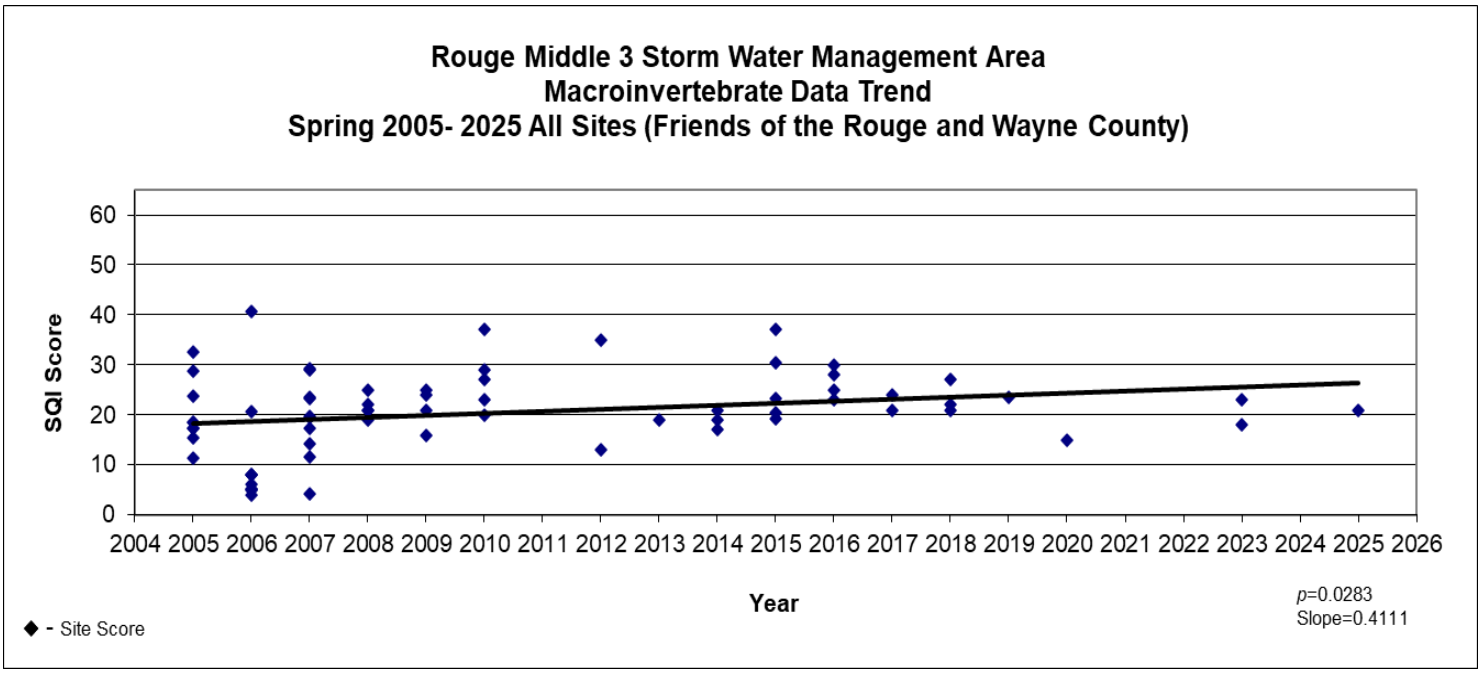


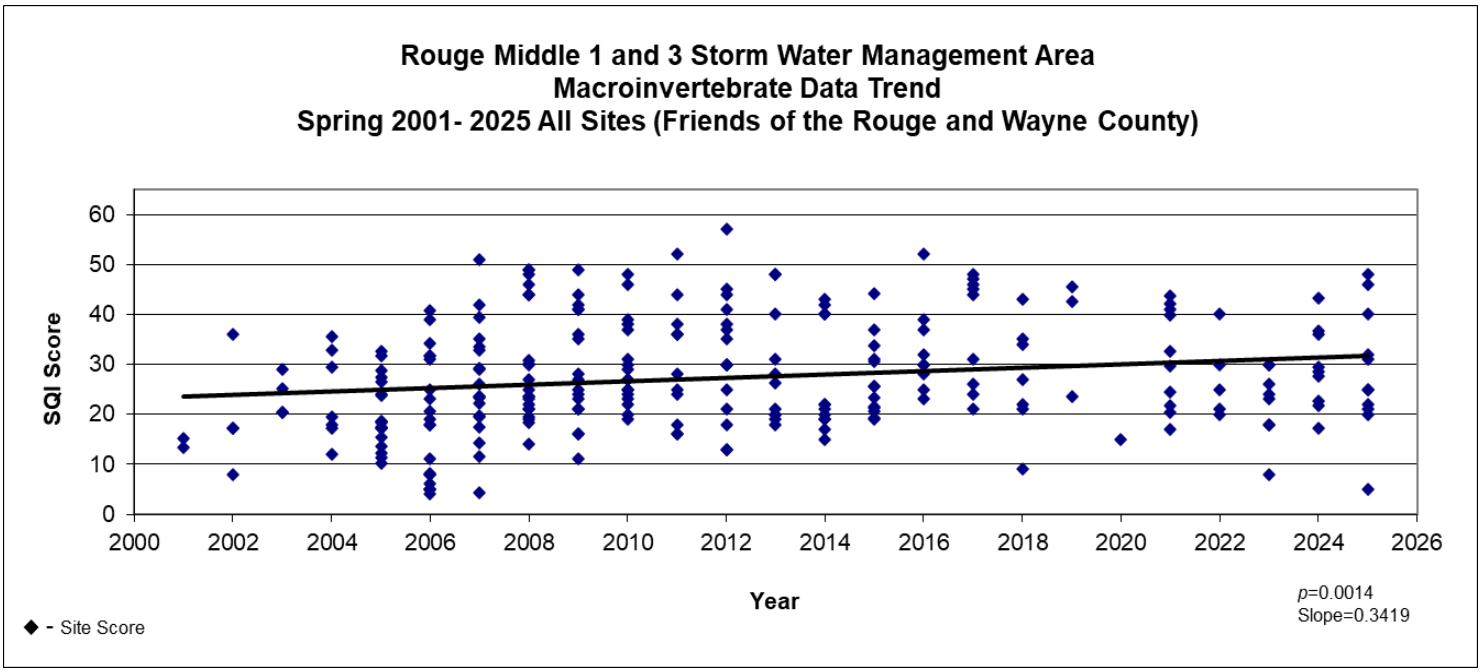
***no sites sampled in Main 3/4 in Spring 2018-2025**

Middle Branch









***Middle 1 and 3 graph does not include Johnson Creek**

Upper Branch