

**What is the REP?**

A place-based environmental education program centered around water quality monitoring of the Rouge River, whose watershed is the most urbanized in Michigan.

The Rouge Education Project trains teachers in the way of volunteer water quality monitoring and provides resources and equipment, and they, in turn, take the information they've learned back to their classrooms. Students see the root cause of environmental issues in their local waterway, and begin to think about bigger picture/Great Lakes issues and implications. They are then encouraged to think about and take action to benefit the river.

**Mission:** To promote awareness and stewardship of the Rouge River watershed through school-based water quality monitoring, investigation, and problem solving.

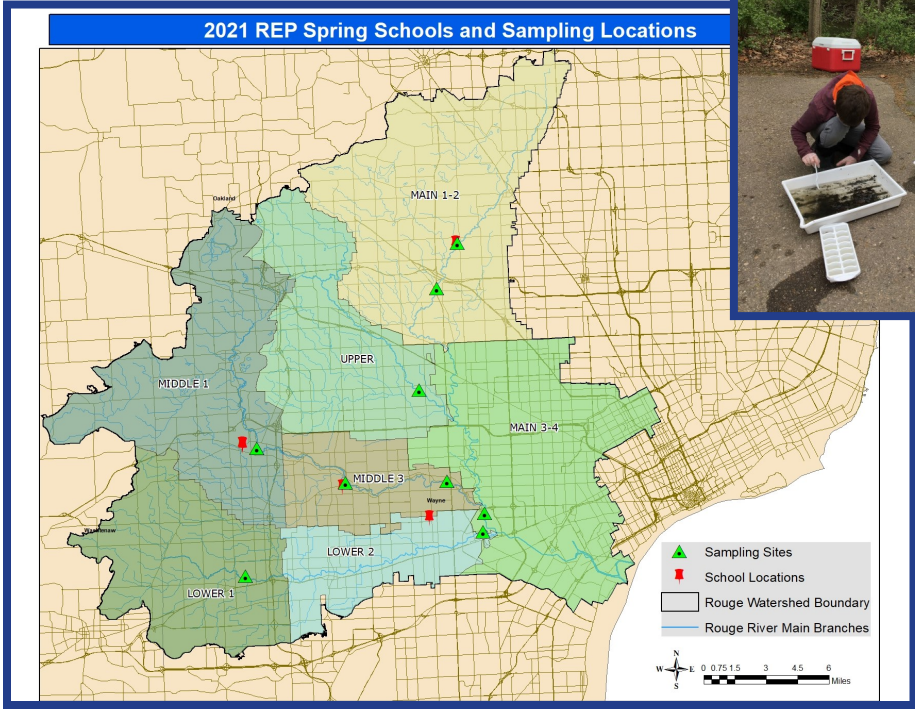
**2021 marked the 34th year of the REP.**

**2021 SPRING MONITORING**  
Crestwood High School, Dearborn Heights  
Detroit Country Day Middle School, Beverly Hills  
Friends of the Rouge, Plymouth  
Huron Valley Lutheran High School, Westland  
Steppingstone School, Plymouth

Spring 2021 was still impacted by COVID-19, and many schools were operating virtually or in a hybrid environment, with few schools allotted the freedom of field trips to the river. The above schools implemented strict COVID prevention protocols and were able to safely sample during this time.

**4 schools**      **388 students**  
**11 teachers**    **9 sampling sites**

*RIGHT (top): A teacher prepares two students for chemical testing on river water*  
*RIGHT (below): A student searches for bugs in a sampling tray*  
*Both photos from Steppingstone School at Riverside Park in Plymouth*



*LEFT: Map of the 2021 spring monitoring event noting school locations (red) and sampling sites (green). Shaded areas of color outline Rouge River subwatersheds.*

**9 schools**      **532 students**  
**20 teachers**      **9 sampling sites**

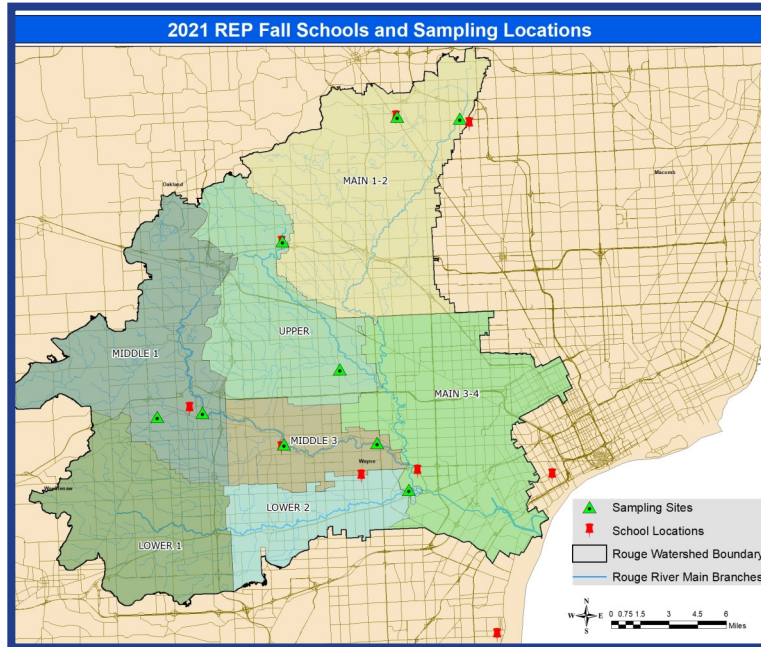


*Clippert Academy students pose before heading back to school at Bell Creek Park, Redford*

**2021 FALL MONITORING SCHOOLS**

Clippert Academy, Detroit  
Crestwood High School, Dearborn Heights  
Farmington STEAM Academy, Farmington Hills  
Henry Ford Early College, Dearborn  
Huron Valley Lutheran High School, Westland  
Roeper School, Bloomfield Hills  
Roosevelt High School, Wyandotte  
Steppingstone School, Plymouth  
Troy High School, Troy

Fall 2021 was still impacted by COVID-19 as schools were adjusting to a new year and associated challenges, but we were able to see an uptick in participation as some resumed normal or modified activities.



*Map of the 2021 fall monitoring schools (red) and sampling sites (green). Shaded areas of color outline Rouge River subwatersheds.*



*Farmington STEAM Academy students search for aquatic bugs at the river behind their school*

**The 2021 numbers...**

- Worked with 10 schools and 920 students
- Nine volunteers helped with the project, including a mix of parents, former teachers, community partners, and other trained volunteers (“REP Assistants”)
- Brought in two new schools

**The results...**

- Visit [www.therouge.org](http://www.therouge.org) -> Our Work -> Rouge Education Project
- The Student Survey Report was unable to be finalized due to inconsistency in distribution because of the COVID-19 pandemic shifting schools back and forth into virtual or hybrid environments
- [2021 Spring Data Summary Report](#)
- [2021 Fall Data Summary Report](#)

**2021 Events**

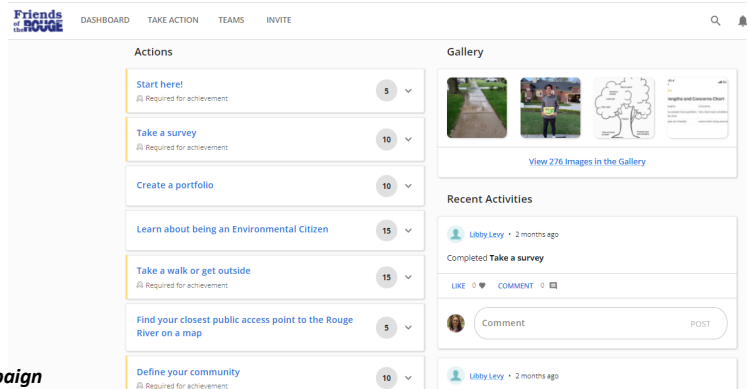
| Workshop   | Date                     | Location | # participants | # activities completed           |
|--|--------------------------|----------|----------------|----------------------------------|
| Rouge River Detective (WeSpire) Activities                                     | 02/23—12/31              | Online   | 86             | 971                              |
| New Teacher Orientation  | 06/09                    | Online   | 3              |                                  |
| New Teacher Orientation (WeSpire) Activities                                   | 07/21—12/31              | Online   | 5              | 49                               |
| Pre workshop activities (WeSpire):<br>Advanced Chemical Training               | 07/21—12/31              | Online   | 8              | 147                              |
| Pre workshop activities (WeSpire):<br>Bug Identification & Sampling Techniques | 07/22—12/31              | Online   | 11             | 81                               |
| Pre workshop activities (WeSpire):<br>Mock Monitoring Day                      | 07/23—12/31              | Online   | 6              | 20                               |
| Advanced Chemical Training   | 08/03                    | Plymouth | 6              |                                  |
| Bug Identification & Sampling Techniques                                       | 08/04                    | Plymouth | 8              |                                  |
| Mock Monitoring Day  | 08/05                    | Plymouth | 8              |                                  |
| Student Symposium  | Postponed /<br>Cancelled | Online   |                | 8 student<br>videos<br>submitted |

Adjustments were made in the delivery of workshops and activities in response to the COVID-19 pandemic. An online activity following steps from watershed investigation to action was launched in February via the WeSpire platform and can be found at [friendsoftherouge.wespire.com](https://friendsoftherouge.wespire.com). These tools and resources are open to all, with emphasis placed on use in the classroom. Training events were revised to now incorporate an online component using the same WeSpire platform, and also included the essential hands-on, in-person activities at the banks of the river. This allowed participants to review materials and presentations at their own pace prior to our time together, while keeping training events more concise. Feedback on the transition to a hybrid training model was very positive.



**ABOVE: Teachers at the bug training**

A virtual student symposium was planned, but due to last-minute circumstances regarding the COVID pandemic and a deadly school-shooting nearby in the state, the live portion was unfortunately cancelled. Students were asked to submit a video sharing what they learned by sampling the river. Eight student groups submitted wonderful videos and they were compiled and shared with other schools to review on their own time.



**RIGHT: Screenshot from the Rouge River Detective campaign**

**THANK YOU...  
LEAD TEACHERS**

Jennifer Carlson  
Jennifer Gabrys  
Steven Grosinske  
Tara Haddad

Joan Henkel  
Diana Johns  
Reef Morse  
Tracy Ortiz

Tina Weller  
Robert Zynda

**REP ASSISTANTS**

Audrey Edwards  
Holly Hereau  
Chester Marvin

**SUPPORTERS**

National Oceanic and Atmospheric Administration Bay Watershed & Education Training Program  
(NOAA Great Lakes B-WET)  
Mercedes-Benz Financial Services  
Laraine Deutsch & the Back-to-School Fundraiser Donors  
Giffels Webster  
Michigan Association of Environmental Professionals  
Teacher Mary Balamucki

**PARTNERS**

Aerokats & Rover Education Network (AREN)  
Earth Force  
Flint River Watershed Coalition  
Global Learning & Observations to Benefit the Environment (GLOBE)  
National Oceanic and Atmospheric Administration (NOAA)  
Southeast Michigan Stewardship Coalition (SEMIS)  
Wayne County Regional Educational Service Agency (Wayne RESA)



*Teachers at the Bug Training in August*



*Screenshot of a student-submitted video from  
Crestwood High School for the symposium*