

A single green leaf is shown floating on a body of water, creating a series of concentric ripples that spread outwards from the point of contact. The background is a light blue gradient.

# Flint River *GREEN*

2012 Annual Report

*Partnering to protect, preserve,  
and improve the  
Flint River Watershed.*

# Go GREEN

## A Letter from the Executive Director

### *Flint River*

### *Watershed Coalition*

### Board of Directors

Brent Nickola, Board Chair  
Amy McMillan, Vice Chair  
Derek Bradshaw, Treasurer  
Darren Bagley, Secretary  
Jim Ananich  
Irene Bashore  
Linda Berker  
David Churchill  
Duane Elling  
Steve Hester  
Brad Hill  
S. Olof Karlstrom  
Andy Leavitt  
Bob McAllister  
Jack Minore  
Diane Peplinski  
Carol Van Buren

### Staff

Rebecca Fedewa  
*Executive Director*

Edythe Westhoff  
*Business Manager*

Casey Foote  
*Development Director*

Jamie Welch  
*Program Assistant*

Holly Rosser  
*GREEN Program Coordinator*

### Flint River GREEN

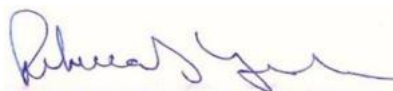
The Flint River Watershed Coalition is proud to have wrapped up our 23<sup>rd</sup> year of coordinating the Global Rivers Environmental Education Network in Genesee and Lapeer Counties. We've seen the program grow and develop every year, to the point where we are one of the largest GREEN programs in the nation.

This year included a new partnership with Kettering University, the host of the 2012 GREEN Student Summit. This exciting change brought our students to one of the premiere engineering colleges in the country. Many thanks to Kettering for your hospitality!

Flint River GREEN provides hands on learning for area students, helping to build the watershed stewards of the future. Student learning covers the scientific method, critical thinking, and public speaking. In the process, students interact with professionals from a wide array of environmental professions, all while getting directly involved in the health of their community. It's an invaluable experience that simply cannot be replicated in the classroom.

Our many partners, volunteers, and funders listed throughout this report are instrumental in the continued success of Flint River GREEN. We are very thankful for their continued participation and support.

See you in 2013,



Rebecca Fedewa  
Executive Director



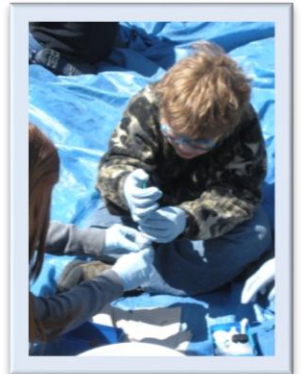
The GREEN Planning Committee works year round to ensure that the GREEN Program is an outstanding success.

The dedication of this committee to GREEN and to its students is exceptional. The committee promotes life-long learning and environmental awareness, so that the students will carry with them the message that they can be heard and make a difference in their environment.

On behalf of the GREEN Committee, thank you to our teachers, mentors, presenters, supporters, and students. GREEN would not be a success without you.



Darren Bagley  
Irene Bashore  
Larry Casler  
James Emmerling  
Rebecca Fedewa  
Eric Hake  
Alyssa Hawkins  
Tammie Heazlit  
Cheryl Hobson  
Lisa Hook  
Thomas Hutchings  
Teresa Krawczyk  
John Maksimchuk III  
Ashley Miller-Helmholdt  
John Moldovan  
Dawn Mosher  
Jan Sneddon  
Bill Welch  
Edythe Westhoff



2012

Our mentors are highly qualified individuals within their respective environmental science fields. GREEN is fortunate to have these dedicated mentors to assist our teachers and students in a variety of ways. They assist in the classroom setting and at their classrooms' selected testing site. Mentors ensure that the water quality tests are performed properly, that safety precautions are followed, and that the data is both accurate and collected within appropriate time parameters. They also help students with career exploration. Mentor assistance is an integral part of the GREEN program, and we thank them for their time and assistance.

Marv Ashbury, General Motors, CCA Swartz Creek

Darren Bagley, Michigan State University Extension, 4-H

Aaron Bagwell, Quaker Chemical

Irene Bashore, General Motors, Flint Assembly

Eric Brubaker, City of Flint- Water Pollution Control Division

Craig Buike, Quaker Chemical

Thad Domick, City of Flint- Water Pollution Control Division

Rebecca Fedewa, Flint River Watershed Coalition

Rob Fenn, General Motors, Flint Engine Operations

Heather Griffin, Naturalist, University of Michigan Flint

Ton Hutchings, City of Flint- Water Pollution Control Division

Tom Jones, Genesee County Drain Commission

Susan Kubic, Genesee County Drain Commission

John Maksimchuk III, General Motors, Flint Metal Center

Rick McAvinchey, Forestry Specialist

Renee Mietz, General Motors

Ashley Miller-Helmholdt, Earth Force

John Moldovan, General Motors Retiree

Al Putney, Delphi Flint

Pat Schultz, General Motors

Brent Wilson, General Motors, Flint Tool & Die



## Participating Schools of GREEN

---

2012

### ***Atherton High School***

Teacher: Matt Hyslop

### ***Beecher Middle School***

Teacher: Don Hammond

### ***Bendle High School***

Teacher: Todd Barden

### ***Birch Run-Marshall Greene Middle School***

Teachers: Tammy Daenzer & Roger Rothe

### ***Brandon Middle School***

Teacher: Dave Green

### ***Carman-Ainsworth High School***

Teacher: Julie Lawrence

### ***Chatfield School - Lapeer***

Teachers: Annette Young, Lori Raymond & Karla Pretty

### ***Clio-Carter Middle School***

Teachers: Chip McCallum & Ryan Nemi

### ***Flint Classical Academy***

Teacher: Robert Ryan

### ***Flint Northern High School***

Teacher: Chris Ochodnicki

### ***Flint Northwestern High School***

Teachers: Nadina Aversa & Tina Natale

### ***Flushing High School***

Teacher: Paul Taylor

### ***Genesee School***

Teacher: Wendy Watson

### ***Genesee High School***

Teacher: Kendra Moore

### ***Goodrich Middle School***

Teachers: Cindy Rivet & Cheri Youngs

### ***Grand Blanc Middle School – East***

Teachers: Deb Lacki, Deb Wilson & Pat Nelson

### ***Grand Blanc Middle School – West***

Teachers: Elizabeth Lemerond & Vicki Skrisson

### ***Kearsley-Armstrong Middle School***

Teachers: April Yorks & Cindy Sierra

### ***Lakeville Middle School***

Teachers: Josh Henley & Andrea Thelen

### ***Linden Middle School***

Teacher: Charlene Nester

### ***Montrose Kuehn-Haven Middle School***

Teacher: Linda Jordan

### ***Mt. Morris Junior High School***

Teachers: Bekah D'Haene, Kim McCormick & Scott Smith

### ***North Branch High School***

Teacher: Carrie Wenta

### ***North Branch Middle School***

Teacher: Julie Tumblin

### ***Rolland-Warner Middle School – Lapeer***

Teachers: Anne Prill & Wyatt Stevens

### ***St. John Vianney Catholic School***

Teacher: Elizabeth Petrides

### ***Swartz Creek Middle School***

Teacher: Brandolyn Forbes

### ***Westwood Heights – Hamady High School***

Teacher: Tammy Wylie



2012

The culmination of the student's hard work is the annual Student Summit. The summit was held at Kettering University. The Summit is an opportunity for the students to present their water quality findings to their peers. The students prepare high quality and informative presentations that detail the results from their many tests.

Students also are invited to participate in a number of fun and educational "Break Out" sessions. These sessions included demonstrations, activities, and lectures focused on the many exciting things of their environment.

Break-Out sessions are led by community members who are passionate about what they do and are equally passionate about educating our GREEN students. They graciously donate their time to make GREEN an even more exciting event!



Students learn what may be lurking in their water with Darren Bagley.

**Student Presentations Emcee**, Tom Jones, Genesee County Drain Commission

**Rats in your Drinking Water**, Darren Bagley, Michigan State University Extension

**Bees, Bee Keeping & Honey**, Jim Dodder, Genesee County Bee Keeper

**Become a Junior Naturalist**, Nicole Ferguson, Genesee County Parks

**Walking Tour of "Chevy in the Hole"**, Steve Montle, Center for Community Progress & Matthew Didier, Environmental Protection Agency-Region 5

**Sewer CSI**, Thad Domick, Dawn Welsh, Eric Brubaker, Tom Hutchings, City of Flint Water Pollution Control Specialists

**Meeting Macro-Invertebrates**, Flint River Watershed Monitors, Mike Haley, Teresa Krawczyk & Denny Crispell

**Paddling the Flint River**, Riley McLincha, Watershed Enthusiast

**Edible Plants**, Peter McCreedy, Ecology Director, Chatfield Schools

**He Heard! Be an Environmental Citizen**, Ashley Miller-Helmholdt, Earth Force

**Bike Hike! A Cycling Demonstration**, Jack Minore, Board Member-Flint River Watershed Coalition & Cycling Enthusiast

**Tour Kettering**, John Maksimchuk III, General Motors , Kettering Alumnus



## GREEN Student Summit Sessions & Presenters

2012



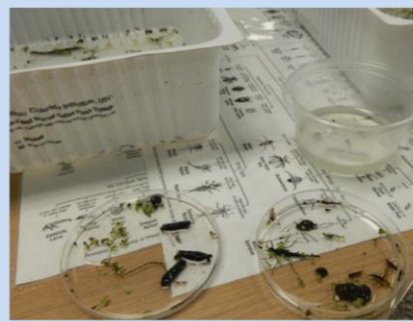
Student  
presenters  
from Kearsley.



Mr.  
Dodder  
gets  
students a  
buzz about  
bees.



Students identify  
macro-invertebrates!



A Beecher  
student makes  
a suet cake for  
the birds.



Students  
travel to their  
next session.



# GREEN Student Survey Results

2012

## Before Project Green

### Answer Options

The Flint River is clean and healthy.  
I can make a difference in the health of the Flint River.  
I understand how a river may become polluted.  
I want to do things to help the environment.  
I know about jobs in the environment field.

Strongly DISAGREE	DISAGREE	AGREE	Strongly AGREE
19%	<b>49%</b>	27%	5%
13%	19%	34%	<b>35%</b>
8%	23%	<b>38%</b>	30%
5%	24%	35%	<b>36%</b>
29%	<b>35%</b>	21%	15%

## After Project Green

### Answer Options

The Flint River is clean and healthy.  
I can make a difference in the health of the Flint River.  
I understand how a river may become polluted.  
I want to do things to help the environment.  
I know about jobs in the environment field.

Strongly DISAGREE	DISAGREE	AGREE	Strongly AGREE
8%	25%	<b>49%</b>	18%
3%	0%	34%	<b>63%</b>
1%	2%	24%	<b>72%</b>
1%	5%	31%	<b>63%</b>
0%	18%	<b>56%</b>	26%



**“Anything else you’re interested in doing is not going to happen if you can’t breathe the air and drink the water. Don’t sit this one out. Do something.”**

**- Dr. Carl Sagan**

The Water Quality Index, or **WQI**, is the grade received for the tested body of water. The scores of the various tests are tabulated and weighted, resulting the WQI. The scores are then measured against the Q-Value rubric to determine the overall health of the water.



### Q-Value Rating

100-90:	Excellent Water Quality
89-70:	Good Water Quality
69-50:	Average Water Quality
49-25:	Marginal Water Quality
24-0:	Poor Water Quality

### Field Tests

Dissolved Oxygen  
Fecal Coliform  
pH  
B.O.D.  
Temperature  
Total Phosphate  
Nitrates  
Turbidity  
Total Solids



**A GREEN Note:** A \* may be assigned to a particular school in the area of WQI results. This means that complete values were not available. This may be the result of adverse weather conditions on the testing day, calculation errors, or testing errors. Trial and error is all part of the scientific process. Students were able to learn about what factors may have played a role in their results and correct these issues for the next testing time. GREEN is a valuable and continuous learning experience.

## Water Quality Index

2012

<b>GREEN School</b>	<b>Testing Location</b>	<b>WQI</b>
Atherton High School	Thread Creek at Bristol Rd.	<b>81.7</b>
Beecher Middle School	Kalamazoo River at Talmadge Creek	<b>71.92</b>
Bendle High School	Thread Creek at Bristol Rd.	<b>71.7</b>
Birch Run Marshall-Greene Middle School	Silver Creek	<b>59.86</b>
Brandon Middle School	Unidentified Location	*
Carman-Ainsworth High School	For-Mar Nature Preserve	<b>80.04</b>
Chatfield School-Lapeer	Farmer's Creek	<b>76.92</b>
Clio Carter Middle School	Pine Run at Clio Park	<b>84.98</b>
Fenton Middle School	Fenton Mill Pond	<b>9.35</b>
Flint Classical Academy	Swartz Creek at Happy Hollow	<b>59.57</b>
Flint Northern High School	Flint River, Western Rd.	*
Flint Northwestern High School	University of Michigan-Flint Campus	*
Flushing High School	Armstrong Creek at Dodge Rd.	<b>81.67</b>
Genesee School	Mott Lake	*
Genesee High School	Mott Lake	*
Goodrich Middle School	Thread Creek, Burpee & Vassar Rd.	<b>82.24</b>
Grand Blanc East Middle School	Armstrong Creek at Dodge Road	<b>92.8</b>
Grand Blanc West Middle School	Frost Gardens	<b>84.62</b>
Kearsley Armstrong Middle School	Thread Creek, Grand Blanc	<b>75.8</b>
Lakeville Middle School	Swartz Creek, near school.	n/a
Linden Middle School	Linden Middle School Grounds	<b>83.63</b>
Montrose Kuehn-Haven Middle School	Hunters Creek at McCormick Dr.	*
Mt. Morris Junior High School	Farmer's Creek	*
North Branch High School	Unidentified Location	*
North Branch Middle School	Gravel Creek, North Branch	<b>74.02</b>
Rolland Warner Middle School, Lapeer	Undisclosed location	<b>92.73</b>
Swartz Creek Middle School	Swartz Creek, Hill Road Bridge	<b>72.85</b>
Westwood Heights-Hamady High School	Clio Bike Path	<b>82.35</b>
The Valley School	Swartz Creek at Van Slyke Rd.	<b>74.8</b>

***“A river is the report card for its watershed.”***

— (Alan Levere Connecticut Department of Environmental Protection)

GREEN partner, [Earth Force](#), has made some exciting announcements:

- Flint River GREEN lead Mentor, **John Maksimchuk III**, received the [Michigan Governor's Service Award Certificate of Recognition](#) for his outstanding work as lead mentor for Flint River GREEN!
- Kearsley Armstrong Middle School won **1<sup>st</sup>** place at the [Michigan Future Problem Solving State Bowl](#)! In working with their school's storm water permitting process, their project involved illicit discharge testing and storm drain stenciling. The students also brought their project to showcase at the Student Summit this past May!



- Flint River GREEN veteran and teacher at Kearsley Armstrong Middle School, **April Yorks**, received the [Chevrolet GREEN Educator Award](#)!





Flint River GREEN wishes to acknowledge and thank our financial and in-kind supporters. Your generosity makes it possible for GREEN to continue its mission to educate young people on their watershed, the environment, and the difference they can make. Your support will have a lasting impact for generations to come.

*City of Flint, Water Pollution Control Department*

*Dort Federal Credit Union, Community Involvement Committee*

*Earth Force*

*Flint River Watershed Coalition*

*Flint River Steelheaders Foundation, Inc.*

*Genesee County Drain Commission*

*Genesee County Michigan State University Extension*

*Genesee County Parks and Recreation Commission*

*Genesee Intermediate School District*

*General Motors Foundation*

*Lapeer County Intermediate School District*

*Kettering University*

*University of Michigan-Flint*

*“All the water that will be, is.”*

*-Anonymous*





THE FLINT RIVER WATERSHED COALITION

400 N. SAGINAW STREET, SUITE 233

FLINT, MICHIGAN 48502

[WWW.FLINTRIVER.ORG](http://WWW.FLINTRIVER.ORG)

