



The Upper Grand River Adopt-A-Stream Program Final Project Report July 2011

Project Name: Upper Grand River Adopt-A-Stream Program

Grantee: Jackson County Conservation District

Other Project Partners Include:

- Ingham Conservation District
 - o The Ingham Conservation district contributed to the program by recruiting volunteers and holding separate training sessions for volunteers in the Ingham County portion of the watershed. The Adopt-A-Stream program was marketed on the Ingham Conservation District website (www.inghamconservation.com) and through mailings to residents.
- The Dahlem Conservancy
 - o The Dahlem Conservancy contributed by marketing the program through their newsletters. Dahlem Conservancy staff also provided training, equipment and equipment storage for the program.
- Upper Grand River Watershed Alliance (UGRWA)/ASTI Environmental
 - o The UGRWA provided a scientific consultant for the Adopt-A-Stream Program. The UGRWA also assisted in training volunteers and marketing the Adopt-A-Stream Program through the UGRWA website (www.uppergrandriver.org), the UGRWA Facebook page, and other outreach opportunities.
- Grand River Environmental Action Team (GREAT)
 - o GREAT contributed by marketing the program in their newsletters. Many members of GREAT contributed by participating as volunteers at Adopt-A-Stream events.

Summary of Project:

During the MiCorps Grant Period (September 2009—June 2011) the Upper Grand River Adopt-A-Stream Program held the following volunteer events:

- Fall 2009—volunteer training session (Jackson county), Collection Day, Bug I.D. Night
- Winter 2010—Stonefly Hunt
- Spring 2010—volunteer training sessions (Ingham and Jackson County), Collection Day, Bug I.D. Night
- Summer 2010—Summer Habitat Assessment Day
- Fall 2010—volunteer training sessions (Ingham and Jackson County), Collection Day, Bug I.D. Night
- Winter 2011—Stonefly Hunt
- Spring 2011—volunteer training session (Ingham County), Collection Day, Bug I.D. Night
- Volunteer participation increased from 16 original volunteers to 96 total volunteers.
- During the grant period, volunteers contributed 420 volunteer hours to the program.
- During the grant period, 15 sites within the Upper Grand River Watershed were monitored one or more times.
- Of these 15 sites, 4 were not monitored prior to the MiCorps grant.

Sites Monitored during the MiCorps Grant:

1. Spring Brook at Robbins Rd.
2. Grand River at Onondaga (Baldwin Park)
3. *Huntoon Creek at Bellevue Rd.
4. Huntoon Creek at Baseline Rd.
5. Grand River at Tompkins Rd.
6. Sandstone Creek at Springport Rd. (Minard Mills)
7. Grand River at Maple Grove Rd.
8. Portage River at Wooster Rd. (Haehnle Sanctuary)
9. *Wildcat Creek at Seymour Rd.
10. Sandstone Creek at McCain Rd. (Kate Palmer Sanctuary)
11. *Grand River at Lion's Park
12. Grand River at High St.
13. Center Lake Outlet at Falahee Rd.
14. *Sharp Creek at Wickwire Rd. (Dahlem Center Farm)
15. Grand River at Liberty Dam

Asterisks indicate sites that were not monitored prior to the MiCorps grant period. All sites are identified on the map on page 6. A summary of the results for monitoring events during the MiCorps period are included in the tables of page 7.

Project Goals:

- Educate the public on water quality issues within the Jackson Urbanized Area and the Upper Grand River Watershed.
 - o Through the Adopt-A-Stream program, the public was educated on water quality issues within the watershed. Volunteers who participated in events received training and first-hand experience learning about the watershed. The general public received information through newsletters and information provided at booths at local events, as well as website and Facebook page updates.
- Evaluate the current conditions of the MDEQ determined Total Maximum Daily Load (TMDL) areas
 - o Through the Adopt-A-Stream Program macroinvertebrates were collected throughout the watershed in TMDL areas and data results were reported to the MS4 communities.
- Meet goals stated in the Phase II Committee's SWPPIs
 - o Public education and involvement requirements for the MS4 communities were achieved by monitoring sites in the urbanized area.
- Foster stewardship ethics among watershed residents
 - o The Adopt-A-Stream program fosters stewardship ethics among watershed residents. It educates people about the watershed and encourages them to be aware of watershed issues and do their part to help improve conditions by "Lending a Hand to Keep it Grand".

Project Objectives (identified in the work plan):

Task 1: Public Collection and Identification Events

1a. Plan and hold a fall 2009 Collection Day and Bug I.D. Night

This task was completed on October 3 and October 7, 2009.

1b. Plan and hold a winter 2010 Stonefly Search

This task was completed on January 30, 2010.

1c. Plan and hold a spring 2010 Collection Day and Bug I.D. Night

This task was completed on May 1 and May 4, 2010.

1d. Plan and hold a fall 2010 Collection Day and Bug I.D. Night

This task was completed on October 2 and October 5, 2010.

Task 1 was completed. Because the grant period was extended to June 2011, a winter 2011 Stonefly Search, a spring 2011 Collection Day and a spring 2011 Bug I.D. Night were also completed.

Task 2: Procedures and Data Management

2a. Revise the Quality Assurance Project Plan (QAPP) as needed in order to be accepted into MiCorps.

This task was completed.

2b. Schedule and complete a joint sampling evaluation event with MiCorps staff ("Side by Side").

This task was completed on September 25, 2009.

2c. Provide products and deliverables upon completion. This should include all data collected, in both hard copy and electronic format.

This task was completed.

2d. Submit data to the MiCorps Data Exchange Network (at least semiannually).

This task was completed.

Task 2 was completed. The QAPP was completed in April 2011. All data during the grant period as well as historical data has been entered into the MiCorps Data Exchange Network.

Task 3: Marketing and Volunteer Recruitment

3a. Write and submit media releases to local newspapers, newsletters, online community calendars, radio and cable television stations

This task was completed. Adopt-A-Stream information was included in newsletters for The Dahlem Conservancy, GREAT, and the Jackson County Conservation District. Adopt-A-Stream information is displayed on the Upper Grand River Watershed Alliance and the Ingham Conservation District websites. Information was sometimes included on the Stewardship Network's event calendar and the Jackson Visitor's Bureau Community calendar. Press releases were sent out to local newspapers prior to each event.

3b. Design and distribute a volunteer monitoring newsletter

This task was completed. During the grant period a Fall 2009, Winter 2009, Spring 2010, Winter 2010 and Summer 2011 newsletter were completed and distributed. Archived newsletters can be accessed on the Upper Grand River Watershed Alliance Webpage (www.uppergrandriver.org).

3c. Develop a partnership with science classes at Jackson Community College and/or additional local universities

During the grant period Adopt-A-Stream staff maintained communication with a biology professor at Jackson Community College. We continue to use lab space and microscopes for our BUG I.D. Nights. Flyers and Adopt-A-Stream information have been distributed to Jackson Community College and other local schools. Despite these efforts, this has not resulted in many new volunteers from local universities. Some students from Spring Arbor University's environmental club have occasionally participated, as well as high school students from throughout the watershed needing to fulfill volunteer hours for class.

The Adopt-A-Stream was marketed through newsletters, newspapers and websites. A volunteer monitoring newsletter was distributed. Additional marketing took place at local events. The Adopt-A-Stream Program was also advertised and marketed at the Quiet Water Symposium (2010), the Earth Day Festival in Jackson (2009 and 2010), Dahlem Conservancy's Birds, Blooms and Butterflies Festival (2010), Jackson's Rose Parade (2010) and the Grand River Expedition in Jackson (2010).

A formal partnership with Jackson Community College was not formed, however we continue to be in contact with a biology professor and use her lab space for our Bug I.D. Nights. A new environmental science professor at Jackson Community College is interested in incorporating stream monitoring in his class. This may lead to a more formal partnership with science classes at Jackson Community College in the future.

Task 4: Administrative/Training

4a. Attend at a one-day MiCorps training session in the first half of 2009

This task was completed.

4b. Participate in the annual MiCorps Conferences during the tenure of the grant

This task was completed. MiCorps Conference was attended in 2009 and 2010.

4c. Develop and submit quarterly status and financial reports

This task was completed.

4d. Develop and submit a final report following MiCorps guidance, at the end of the project

This task was completed.

4e. Submit a release of claims statement (a standard form letter) at the end of the project

This task was completed.

All administrative and training tasks associated with the MiCorps Grant have been completed at this time.

Challenges Encountered:

The challenges encountered by the Upper Grand River Adopt-A-Stream Program are representative of challenges encountered by many small volunteer based programs. These challenges consisted of the following:

- Retaining returning volunteers— It was also a challenge to get volunteers to continue participating in Adopt-A-Stream events. Since the volunteer opportunities are the same every season, some volunteers would lose interest after a few events.
- Attracting New Volunteers – It was difficult to recruit new volunteers outside of the core group of volunteers that were already actively participating in the program. The program was marketed through newsletters, press releases, websites, at outreach events (parades, and booths at local events) but it was still difficult to attract many new volunteers. There was interest in the event from an ecology club at a local college, but the participation from this group ultimately was low.
- Low participation— For some events it was hard to get volunteers to sign up. Interest in the community seemed to be low. Participation was sometimes lower due to competing events from other environmental groups, such as the Audobon Society.

The program also encountered challenges related to the sites themselves.

- Weather related challenges— For more than one event, high water was a concern. Many of the

sites that the program monitors are not ideal for high water conditions. When high water occurs, many of the sites had to be eliminated for safety reasons.

Project Sustainability:

The Upper Grand River Adopt-A-Stream program will continue with the same format after the MiCorps grant period ends. The MS4 Phase II Communities in Jackson will be providing \$7,000 a year in funding to continue the program, and partners will continue to seek other grant funds as appropriate.

Environmental and Other Benefits of the Program:

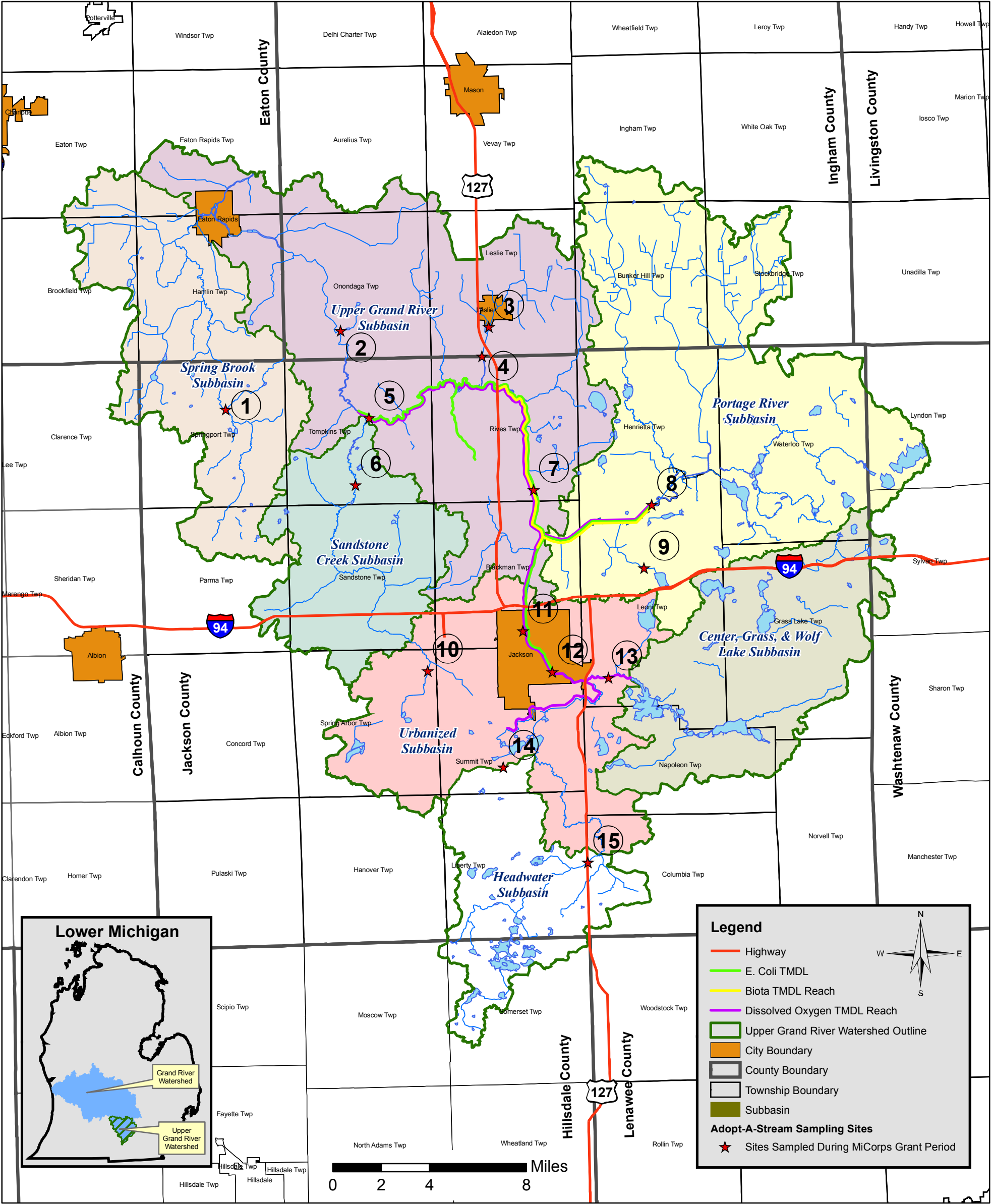
The Upper Grand River Adopt-A-Stream program allows interested participants a chance to learn about their local watershed. Some volunteers (GREAT members) are quite knowledgeable about the Upper Grand River Watershed. These volunteers already spend much of their free time in the watershed, so the Adopt-A-Stream program gives them a chance to expand their knowledge about the watershed. Other volunteers join the program less knowledgeable about the watershed. For many new volunteers, it is surprising to learn how many “bugs” (macroinvertebrates) are found in a given stream. They will not learn how to identify all of the species, but the program gives them an idea of what is out there and why these “bugs” are important to the watershed. The Adopt-A-Stream Program gives volunteers a chance to learn about something new about the watershed, or further their knowledge on an issue they are interested in.

Lessons Learned:

The biggest lesson learned is that the most difficult part of the program is obtaining volunteers. You cannot run a volunteer program on staff alone. You can thoroughly market a program and still not have interested participants sign up. Flexibility was also an important lesson learned. You need to be organized to run a volunteer program, but you also need to learn to be flexible. Volunteers may sign up, but at the last minute they may not be able to participate. Or, sometimes volunteers forget to RSVP, but still show up on collection day. You have to understand that these are volunteers donating their free time and learn to be flexible with assigning volunteer teams and sites.

Products Completed:

- Adopt-A-Stream Newsletters (Fall 2009, Winter 2009, Spring 2010, Winter 2010, Summer 2011)
- Adopt-A-Stream Brochure
- Adopt-A-Stream Bookmark
- Adopt-A-Stream Flyers
- School Flyer
- QAPP



- 1

Spring Brook @ Robbins Rd.
- 2

Grand River @ Onondaga (Baldwin Park)
- 3

Huntoon Creek @ Bellevue Rd.
- 4

Huntoon Creek @ Baseline Rd.
- 5

Grand River @ Tompkins Rd.
- 6

Sandstone Creek @ Springport Rd. (Minard Mills)
- 7

Grand River @ Maple Grove Rd.
- 8

Portage River @ Wooster Rd. (Haehnle Sanctuary)
- 9

Wildcat Creek @ Seymour Rd.
- 10

Sandstone Creek @ McCain Rd. (Kate Palmer Sanctuary)
- 11

Grand River @ Lion's Park
- 12

Grand River @ High St.
- 13

Center Lake Outlet @ Falahee Rd.
- 14

Sharp Creek @ Wickwire Rd. (Dahlem Center Farm)
- 15

Grand River @ Liberty Dam

Upper Grand River Watershed

Data from the Michigan Center for Geographic Information
Funded in part by the Michigan Clean Water Corps
Nonpoint Source Program under project 2011-0029



Upper Grand River Adopt-A-Stream Monitoring Results

Table 1. Fall 2009 Monitoring Results

Map Site #	Site Location	# of Sensitive Taxa	# of Total Taxa (Species Richness)	MDEQ Proc. 51 Rating	MiCorps Rating
1	Springbrook @ Robbins Road	2	20	Acceptable	Good
2	Grand River @ Onondaga (Baldwin Park)	2	18	Acceptable	Fair
9	Wildcat Creek @ Seymour Road	0	20	Acceptable	Good
10	Sandstone Creek @ McCain Road (Kate Palmer Sanctuary)	5	33	Good	Excellent
12	Grand River @ High Street (west crossing)	1	17	Acceptable	Fair
14	Sharp Creek @ Wickwire Road (Dahlem Center Farm)	3	25	Acceptable	Good
15	Grand River @ Penny Lane (Liberty Fire Hall)	4	27	Excellent	Excellent

Table 2. Winter 2010 Stonefly Hunt Results

Map Site #	Site Location	# of Capniidae Found	# of Taeniopterygidae
6	Sandstone Creek @ Springport Rd. (Minard Mills Park)	7	4
13	Center Lake Outlet at Falahee Rd.	4	0
15	Grand River @ Liberty Dam	1	1

Table 3. Spring 2010 Monitoring Results

Map Site #	Site Location	# of Sensitive Taxa	# of Total Taxa (Species Richness)	MDEQ Proc. 51 Rating	MiCorps Rating
1	Springbrook @ Robbins Road	5	26	Acceptable	Excellent
2	Grand River @ Onondaga (Baldwin Park)	0	9		Fair
3	Huntoon Creek @ Bellevue Road	1	10	Acceptable	Fair
6	Sandstone Creek @ Springport Road (Minard Mills Park)	5	25	Acceptable	Excellent
8	Portage River @ Wooster Road (Haehnle Sanctuary)	3	17	Acceptable	Good
10	Sandstone Creek @ McCain Road (Kate Palmer Sanctuary)	8	28	Excellent	Excellent
12	Grand River @ High Street	2	18	Acceptable	Good
14	Sharp Creek @ Wickwire Road (Dahlem Center Farm)	2	17	Acceptable	Good

Table 4. Fall 2010 Monitoring Results

Map Site #	Site Location	# of Sensitive Taxa	# of Total Taxa (Species Richness)	MDEQ Proc. 51 Rating	MiCorps Rating
2	Grand River @ Onondaga (Baldwin Park)	4	24	Acceptable	Excellent
3	Huntoon Creek @ Bellevue Road	1	14	Acceptable	Fair
6	Sandstone Creek @ Springport Road (Minard Mills Park)	3	14	Acceptable	Good
8	Portage River @ Wooster Road (Haehnle Sanctuary)	1	14		Fair
14	Sharp Creek @ Wickwire Road (Dahlem Center Farm)	2	16	Acceptable	Good
15	Grand River @ Liberty Dam	6	26	Excellent	Excellent

Table 5. Summer 2010 Habitat Assessment Sites

Map Site #	Site Location
2	Grand River @ Onondaga (Baldwin Park)
5	Grand River @ Tompkins Rd.
7	Grand River @ Maple Grove
8	Portage River @ Wooster Road (Haehnle Sanctuary)
12	Grand River @ High St.
15	Grand River @ Liberty Dam

Note: Habitat results are observational, they are not tallied.

Table 6. Winter 2011 Stonefly Hunt Results

Map Site #	Site Location	# of Capniidae Found	# of Taeniopterygidae
3	Huntoon Creek at Bellevue Rd.	1	35
11	Grand River @ Lion's Park	0	4
14	Sharp Creek @ Wickwire Road (Dahlem Center Farm)	0	9
15	Grand River @ Liberty Dam	0	5

Table 7. Spring 2011 Monitoring Results

Map Site #	Site Location	# of Sensitive Taxa	# of Total Taxa (Species Richness)	MDEQ Proc. 51 Rating	MiCorps Rating
2	Grand River @ Onondaga (Baldwin Park)	3	22	Acceptable	Good
3	Huntoon Creek @ Bellevue Road	2	13	Acceptable	Good
9	Wildcat Creek @ Seymour Road	3	23	Acceptable	Excellent
10	Sandstone Creek @ McCain Road (Kate Palmer Sanctuary)	4	17	Acceptable	Excellent
14	Sharp Creek @ Wickwire Road (Dahlem Center Farm)	3	25	Acceptable	Good
15	Grand River @ Liberty Dam	5	27	Excellent	Excellent

The Upper Grand River Watershed Adopt-A-Stream Program Photographs



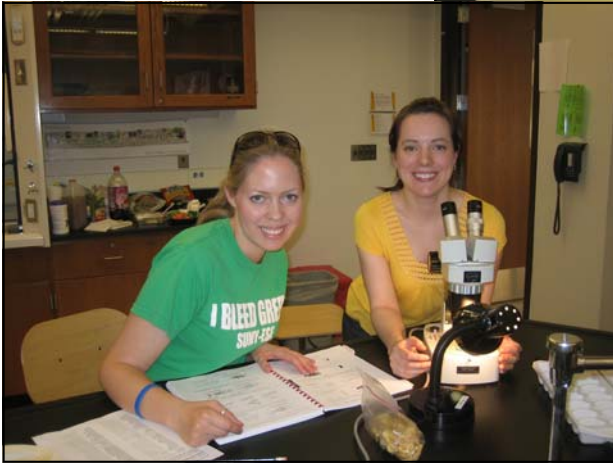
Volunteer Training



Winter Stonefly Hunt



Collection Day



Bug ID Night



Advertising the Adopt-A-Stream Program

Brochure

Upper Grand River Adopt-A-Stream

The Upper Grand River Adopt-A-Stream Program is a partnership between the Jackson County Conservation District (JCCD), The Dahlem Conservancy, The Upper Grand River Watershed Alliance, the Grand River Environmental Action Team (GREAT), the Jackson Urban Area MS4 Communities, ASTI Environmental and volunteers throughout the Watershed.

Funding for the program is provided by the Michigan Department of Natural Resources & Environment through the Upper Grand River Implementation Project (UGRIP), by the Jackson Area Storm Water Committee, and a grant through the Michigan Clean Water Corps (MiCorps).



If you have any questions, or are interested in volunteering at an upcoming event, please contact the Adopt-A-Stream Staff.

Adopt-A-Stream Program Staff

Alison Rauss - Adopt-A-Stream Program Coordinator
Jackson County Conservation District
alison.rauss@macd.org
(517)784-2800 Ext. 5

Cecilia Govrik - Watershed Project Manager
Jackson County Conservation District
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(517)784-2800 Ext. 208

Kimberly May - The Dahlem Conservancy
KMay@dahlemcenter.org

Paul Rentschler - Upper Grand River Watershed Alliance/ASTI Environmental
prentscher@asti-env.com



Upper Grand River

Adopt-A-Stream Program

Volunteer Monitoring Opportunities

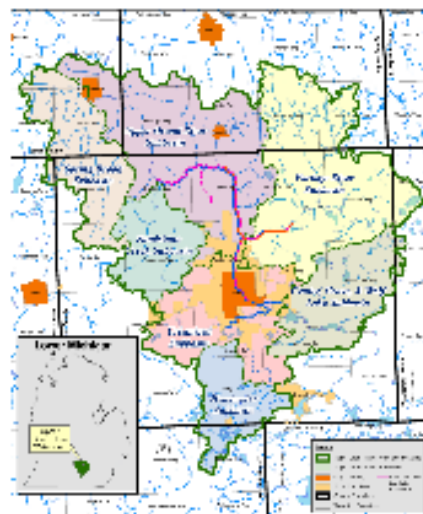


The Upper Grand River Adopt-A-Stream Volunteer Monitoring

The Upper Grand River Watershed

The Upper Grand River Watershed consists of 700 square miles. The watershed is located primarily in Jackson County. Portions of the watershed are also located in Ingham, Eaton, Calhoun and Washtenaw Counties.

Parts of the Upper Grand River fail to meet MDEQ water quality standards for E coli, dissolved oxygen and biota.



Upper Grand River Watershed
Map of the Upper Grand River Watershed
Source: MDEQ, 2000

What is Adopt-A-Stream?

Adopt-A-Stream is a program where trained volunteers help track the health of The Upper Grand River by monitoring water quality, describing the habitats in and around the river and collecting "benthic macroinvertebrates".



What is a "Benthic Macroinvertebrate?"

Benthic means "bottom", "macro" means large (large enough to see without a microscope) and "invertebrates" are animals with no backbones. So, we're talking about things like snails, clams, insects, worms and crayfish. "Bugs" for short.



Volunteer Opportunities

Are you looking for an opportunity to get outdoors and learn about your watershed?

Adopt-A-Stream Collection days take place once in the spring (April or May) and once in the fall (September or October). There is also a Winter Stonefly Hunt (January or February).

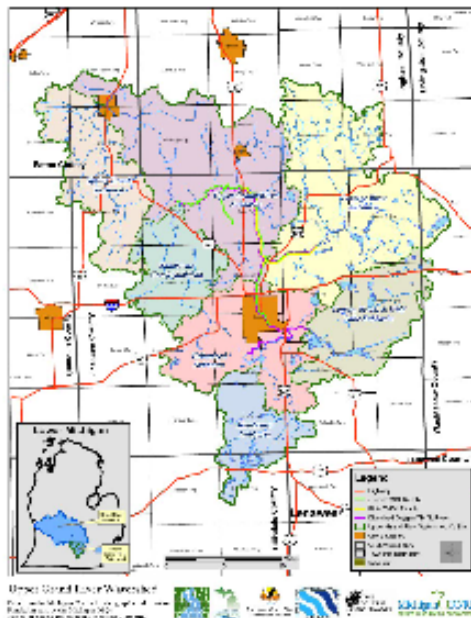
Volunteers do not need experience in water quality or macroinvertebrate identification. All training and equipment is provided. *Children 12 and up are welcome if accompanied by an adult.

For information on upcoming volunteer events please visit:
www.uppergrandriver.org

Upper Grand River Adopt-A-Stream Program

Are you looking for an opportunity to get outdoors and learn about your watershed?

If so, try volunteering with the Upper Grand River Adopt-A-Stream Program!



Adopt-A-Stream Collection days take place once in the spring (April or May) and once in the fall (September or October). There is also a Winter Stonefly Hunt (January or February) and a Summer Habitat Day (August or September).

Volunteers do not need experience in water quality or macroinvertebrate identification. All training and equipment is provided. *Children 12 and up are welcome if accompanied by an adult.

What is Adopt-A-Stream?

Adopt-A-Stream is a program where trained volunteers help track the health of The Upper Grand River by monitoring water quality, describing the habitats in and around the river and collecting "benthic macroinvertebrates".



What is a "Benthic Macroinvertebrate"?

Benthic means "bottom", "macro" means large (large enough to see without a microscope) and "invertebrates" are animals with no backbones. So, we're talking about things like snails, clams,

If you have any questions, or are interested in volunteering at an upcoming event, please contact the Adopt-A-Stream Staff:

Jackson County

Alison Rauss: alison.rauss@macd.org
(517)784-2800 Ext. 5

Ingham County:

Michelle Beloskur: michelle.beloskur@macd.org
(517)676-2290



For information on upcoming volunteer events please visit: www.uppergrandriver.org

Upper Grand River Adopt-A-Stream Program



Are you looking for an opportunity to get outdoors and learn about your watershed?

If so, try volunteering with the Upper Grand River Adopt-A-Stream Program!

- Collection days take place in the spring and in the fall
- There is also a Winter Stonefly Hunt
- Volunteers do not need experience
- All training and equipment is provided
- Children 12 and up are welcome if accompanied by an adult

For information on upcoming volunteer opportunities please visit: www.uppergrandriver.org

Event Flyers

Upper Grand River Watershed Adopt-A-Stream Program Fall 2010 Collection Dates

Fall Collection

Saturday October 2nd
9:00 am - 1:00 pm
Meet at The Dahlem Center
7117 South Jackson Road, Jackson

Ingham County Volunteers:

Meet at Ingham County Cons. District
1030 West Dexter Trail, Mason

Bug ID Night

Tuesday October 5th
5:30 pm - 8:30 pm
Meet at Jackson Community College
McDivitt Hall
Room JM135
2111 Emmons Road, Jackson



Please RSVP to Alison Rauss by Thursday September 29th if you are interested in volunteering: (517)784-2800 Ext. 5 or alison.rauss@macd.org

For more information please visit: www.uppergrandriver.org

Upper Grand River Watershed Adopt-A-Stream Program

Bug I.D. Night



Come help us identify all of the critters we collected from the river during our Adopt-A-Stream Collection Day. No training or experience is required—instructions and resources will be available that night.

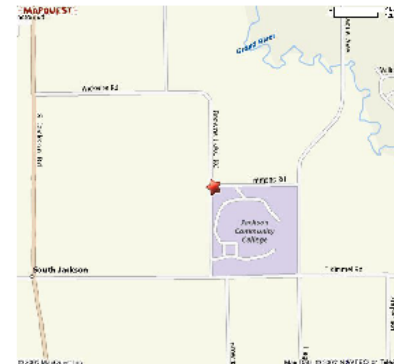
Call Cecilia if you have any questions: 517-784-2800 x208.

Tuesday, Oct. 5th, 2010
5:30 pm – 8:30 pm

Jackson Community College
2111 Emmons Rd. in Jackson

McDivitt Hall
Room 135

Light refreshments will be provided that night.



James McDivitt Hall is located in the center of campus – park in a lot off of Browns Lake Rd.



CALENDAR OF UPCOMING EVENTS

Thursday April 21, 2011

6:30 pm - 8:30 pm

Spring Collection Training Day

Meet at The Dahlem Center

7117 South Jackson Road, Jackson

Please RSVP by Monday April 18th

Tuesday April 26, 2011

6:30 - 8:30 pm

Spring Collection Training (Ingham County)

1030 West Dexter Trail, Mason

*Please RSVP to Ingham Conservation District

(517)676-2290 by Friday April 22nd

Saturday May 7, 2011

9:00 am - 1:00 pm

Spring Adopt-A-Stream Collection Day

Meet at The Dahlem Center

7117 South Jackson Road, Jackson

Please RSVP by Monday May 2nd

Tuesday May 10, 2011

5:30 - 8:30 pm

Bug ID Night

Jackson Community College

McDivitt Hall (Room tba)

2111 Emmons Road, Jackson

Please RSVP by Monday May 9th

Upper Grand River Adopt-A-Stream

Volunteer Monitoring

Interested in getting outdoors and learning more about the Upper Grand River Watershed?

Join us for the Spring Adopt-A-Stream Events! Volunteers do not need any experience. All training and equipment will be provided.

- On Collection Day, volunteers will work in teams to collect macroinvertebrates ("bugs") from different sites along the Upper Grand River. Volunteers can either wade in the water and collect bugs, or stay dry on land and help sort out the bugs.
- On Bug ID Night we will use microscopes and reference materials to identify the bugs we have found on collection day.
- New volunteers will need to attend one of the training sessions to participate in Collection Day.

Please contact Alison Rauss at the Jackson County Conservation District if you are interested in volunteering for any of these events:
(517)784-2800 Ext. 5 or alison.rauss@macd.org

What is a macroinvertebrate?

"Macro" means large (large enough to see without a microscope) and "invertebrates" are animals without backbones. So, we're talking about things like snails, clams, insects, worms and crayfish. "Bugs" for short.



For more information
please visit:
www.uppergrandriver.org