



Project Summary for September 2004 - August 2009

Prepared by

**The Great Lakes Commission
&
The Huron River Watershed Council**

September 30, 2009

What is MiCorps?

The Michigan Department of Environmental Quality (DEQ) is responsible for environmental monitoring of Michigan's surface water resources to assure that they meet Michigan's Water Quality Standards. The DEQ recognizes the potential for citizen volunteers to make a substantial contribution to the state's water quality monitoring program. Given the limitations of state resources dedicated to lake and stream monitoring, DEQ staff is increasingly relying on volunteer water quality monitoring data to support water resources management and protection programs decisions. The DEQ began a volunteer lake monitoring program in 1974 and a volunteer stream monitoring program in 1998.

Governor Jennifer M. Granholm formally recognized the need and importance for volunteer monitoring groups to assist DEQ's lakes and streams monitoring program. In September 2003, Governor Granholm issued Executive Order #2003-15 creating the Michigan Clean Water Corps (MiCorps), a statewide initiative to foster and support volunteer monitoring programs in Michigan.

MiCorps assists volunteers around the state in participating in water quality monitoring activities. Many volunteer groups are already monitoring Michigan rivers, streams, and lakes at various levels of effort. These groups vary in their capacity and expertise, yet all have the potential to make valuable contributions to our understanding of Michigan's water quality. MiCorps has incorporated the state volunteer water monitoring programs and these other established volunteer monitoring programs into a volunteer monitoring network that encourages the use of standard quality assurance practices and monitoring procedures in order to ensure the collection of high quality data.

MiCorps supports volunteer monitoring in numerous ways, including:

- providing funds, technical assistance, and resources to groups interested in developing stream monitoring programs.
- leading a statewide lake volunteer monitoring program;
- providing a forum for communication and support among volunteer monitoring groups in the state;
- providing standard methods and training for accurate, comparable data collection; and
- enforcing quality assurance practices both in sampling and reporting of data.

Furthermore, MiCorps staff is committed to working with volunteer groups on a range of levels, including encouraging and cultivating leadership and stewardship, volunteer training, data compilation, assistance in meeting specific challenges, communicating findings to local stakeholders, and evaluating accuracy and reliability of data and performance.

Ultimately, MiCorps strives to work with volunteers and state agencies to broaden the scope of knowledge about our water resources.

MiCorps Staff

The Great Lakes Commission was awarded the contract to assist DEQ in establishing and administering the MiCorps program. The Commission is partnered with the Huron River Watershed Council to develop, implement, and administer the program, under the direction of DEQ. The original three-year contract began in September 2004 and ended August 2007. At that time, the Great Lakes Commission received a two-year contract extension to continue the program through August 2009.

MiCorps staff also subcontracts with the Michigan Lake and Stream Associations and Michigan State University to implement the Cooperative Lakes Monitoring Program (CLMP) component of the program.

In this report, the following people are generically referred to as “MiCorps staff”:

Great Lakes Commission (GLC)

- Laura Kaminski, MiCorps project administrator
- Anne Sturm, MiCorps support staff
- Laura Andrews, MiCorps support staff
- Hao Zhuang, MiCorps support staff

Huron River Watershed Council (HRWC):

- Paul Steen, MiCorps project manager
- Ric Lawson, MiCorps support staff

Department of Environmental Quality (DEQ):

- Ralph Bednarz, MiCorps Administrator (2003 – present), CLMP Administrator, Water Bureau
- John Wuycheck, MiCorps Administrator (2006 – 2009), Water Bureau

Other CLMP staff:

- Jean Roth, Michigan Lake and Stream Associations (MLSA)
- Scott Brown, Michigan Lake and Stream Associations (MLSA)
- Jo Latimore, Michigan State University (MSU)



MiCorps Accomplishments from 2004-2009

MiCorps contains two major programs:

- the Volunteer Stream Monitoring Program (VSMP) and
- the Cooperative Lakes Monitoring Program (CLMP).

These programs are supported by a number of essential components:

- a steering committee;
- a website and data exchange platform;
- an annual conference;
- program marketing and promotion; and
- a semiannual newsletter.

MiCorps staff also administers the Volunteer River, Stream, and Creek Cleanup Program (VRSCCP) as a separate program under the MiCorps contract.

In the following pages, this report gives a description of each of these parts of MiCorps and the progress made on them for the contract period of 2004-2009.



VSMP grant recipients pour over MiCorps macroinvertebrate materials in order to identify a tricky aquatic insect.



CLMP volunteer Bruce Lichliter, from Big Glen Lake, prepares to take a water sample that will be filtered and sent to the DEQ water quality lab for chlorophyll a analysis.



Friends of the Rouge lead a workshop to train their future volunteer team leaders.

Volunteer Stream Monitoring Program (VSMP)

- Each year, approximately \$50,000 is made available to volunteer groups through a competitive grant application process for the purpose of monitoring habitat and aquatic macroinvertebrates in wadable streams and rivers. MiCorps staff reviews applications in consultation with DEQ staff and administers these grants.
- MiCorps staff provides training and support to these grant recipients to ensure that they are collecting high-quality data and running successful programs.
- Via the MiCorps website, the groups are given access to a wide array of resources on volunteer stream monitoring, including stream monitoring datasheets, guidance for developing a Quality Assurance Project Plan (QAPP), equipment lists, collection tips, monitoring procedures, relevant DEQ documents and publications, tips for publicity and volunteer retention, and other useful tools.



At the annual stream training event, MiCorps grant recipients learn the proper procedures for collecting macroinvertebrates and assessing stream habitat.



MiCorps staff member Ric Lawson teaches future stream leaders about quality assurance plans at the annual stream training event.

- To ensure data quality, MiCorps requires all grant recipients to develop an approved QAPP, attend a full day training event at which MiCorps monitoring procedures are taught, and attend a one-on-one training event with MiCorps staff. In addition, further training opportunities are provided at the annual conference.
- MiCorps staff works closely with each group, encouraging leadership, offering technical advice, and providing assistance where possible.
- Beginning with the 2007 grant cycle, MiCorps has set aside a portion of the annual VSMP funding as “seed money” for newly forming volunteer monitoring groups. Under this initiative, applicants may apply for a one year “start-up” grant to receive a small amount of funding to allow them to begin the process of starting a monitoring program. Start-up groups are given full access to MiCorps training and MiCorps staff expertise and are expected to submit an application for a full grant the next year.
- A total of 22 groups have received grants under the VSMP (Appendix A). In the spring of 2009, over 1,000 Michiganders participated in a MiCorps stream event. Over 200 stream sites, each of which is 300 feet long, are being sampled by groups that have received VSMP funding.
- All of the data obtained through the VSMP is available on MiCorps’s web based Data Exchange Platform (www.micorps.net).

Cooperative Lakes Monitoring Program (CLMP)

- The CLMP, formerly known as the Self-Help program, started in 1974 and is one of the nation's longest running lake monitoring programs. It was brought under the MiCorps umbrella upon creation of MiCorps.
- Administering and supporting the CLMP requires a combination of different skills. MLSA, under contract with GLC, is the public front for the CLMP and handles volunteer registration and equipment distribution. MiCorps staff from the DEQ, HRWC, and Michigan State University work with the volunteers on technical problems, training, and quality control. GLC maintains the MiCorps website, online registration, and the Data Exchange, where the data is stored.
- The CLMP enables volunteers to measure several parameters that indicate the trophic (a.k.a. nutrient or productivity) status of the lake: secchi disk transparency, total phosphorus, chlorophyll *a*, and dissolved oxygen and temperature.
- Total phosphorus and chlorophyll samples are sent to the DEQ water quality laboratory for analysis after volunteers collect them.
- The CLMP also offers training and field support in aquatic plant surveying and invasive aquatic plant identification.



Left: DEQ's Ralph Bednarz takes side-by-side measurements with a volunteer. This is used to determine the accuracy of the volunteers' monitoring procedures.

Right: Jim Dixon, a volunteer from Big Star Lake, takes a secchi disk transparency measurement.



- The CLMP strictly follows a QAPP (quality assurance project plan) that guides the program in maintaining consistent and accurate data collection.
- MiCorps staff holds a training event in CLMP monitoring procedures on an annual basis, prior to the beginning of the field season. The training is mandatory for all new participants in order to maintain the program's data quality standards.
- The Volunteer Mentor Program, a new initiative started in 2009, matches up experienced volunteers with new volunteers who need additional assistance.
- DEQ Water Bureau staff randomly sample approximately 10% of the enrolled lakes each year to compare the trophic measurements made by limnology experts against volunteer measurements. Results have shown that there is a very high level of agreement between volunteer and expert measurements. Volunteer samples show a 90% agreement with DEQ staff samples (based on R^2 correlation values) for total phosphorus and for chlorophyll *a* samples. The difference is more reflective of a slight difference in methods than in volunteer sampling error.
- In 2009, 227 basins from 220 unique lakes were enrolled in the CLMP (Appendix B). This number has held steady over the past several years of monitoring. A short summary of 2008 results are located in Appendix C.
- All of the data are available in the CLMP annual reports found on the project webpage and are located in the web-based Data Exchange Platform.

Volunteer River, Stream, and Creek Cleanup Program (VRSCCP)

- Each year, approximately \$25,000 is made available to Volunteer River, Stream, and Creek Cleanup Program (VRSCCP) grant recipients through a competitive grant application process. The purpose of these grants is removal of trash and man-made debris from rivers and streams and along their banks. Local units of government are eligible to receive funding and may work with nonprofit organizations or other volunteer groups to implement volunteer cleanup efforts on waterbodies around the state.
- The VRSCCP first began in 1998, and though it is not a direct part of the MiCorps initiative, the administration of this program was brought under the MiCorps support contract upon its creation in 2004.
- Funding for this program is provided by citizen donations collected from the sale of Michigan's Water Quality Protection License Plates under Public Act 74 of 2000 for water quality protection in Michigan Great Lakes, inland lakes, rivers, and streams.



Volunteers at the City of Detroit's 2008 Rouge Park River Cleanup remove a large tire from the Rouge River. Project coordinators often had contests for their volunteers for the most unusual "find" or largest quantity of debris collected.



Grant recipients are encouraged to engage youth and community groups, such as the Kingsley 4-H Outdoor Adventure Challenge Club (shown above), for participation in clean-up events. Volunteer recruitment and participation is a critical part of the program.

- GLC staff assists the DEQ in publicizing the grant program, hosting and maintaining the VRSCCP website (www.glc.org/streamclean), maintaining an online grant application system, and providing additional resources and assistance for project coordinators. Each year, staff also review applications for the grant program - in consultation with DEQ staff - and administer these grants to the award recipients.
- Since 2005, more than 60 grants totaling greater than \$110,000 have been awarded to recipients around the state under the VRSCCP (Appendix D).

MiCorps Steering Committee

- The steering committee is responsible for advising MiCorps staff and DEQ members on the development of the MiCorps Program and suggesting improvements to make the program more effective and sustainable.
- From 2004- 2009, the Steering Committee met at least twice a year to discuss the program, review conference agendas, and present new ideas to the staff.
- The original steering committee was composed of the following members:
 - Elwin Coll, Chair, private citizen
 - Kevin Cronk, Tip of the Mitt Watershed Council
 - Pearl Bonnell, Michigan Lake and Stream Associations
 - Marilyn Shy, Michigan Association of Conservation Districts
 - Joan Martin, Huron River Watershed Council
 - Robert Burns, Friends of the Detroit River
 - Jane Herbert, Michigan State University of Extension
- Jane Herbert stepped down in October 2008, and Pearl Bonnell stepped down in August 2009. Replacements have not yet been selected.
- Lori Phalen, Michigan Association of Conservation Districts replaced Marilyn Shy in 2006.



Steering Committee Chair Elwin Coll, and DEQ's Jack Wuycheck, present an award to a MiCorps member Dr. Scott McNaught and Pearl Bonnell at the 2007 MiCorps Annual Conference

MiCorps Website and Data Exchange Platform

- The MiCorps website (www.micorps.net) is an essential tool used to support the work done through the VSMP and CLMP programs, and to provide resources to volunteer monitoring groups around the state.
- The website plays an important role in many ways as it...
 - Informs people about the MiCorps program and how they can become involved.
 - Serves as a location to place announcements and upcoming events.
 - Serves as a repository for a wide variety of educational resources, documents, and forms used by MiCorps staff and volunteer coordinators.
 - Allows volunteers to subscribe to one of two MiCorps listservs. These email lists allow MiCorps staff to send announcements quickly to a large group and facilitate broader email discussions on a variety of volunteer monitoring topics.
 - Holds a directory of MiCorps member organizations and volunteer monitoring groups statewide.
 - Serves as the data entry and data search interface for the MiCorps Data Exchange: the database used to store all volunteer collected data.
 - Used for online registration in the CLMP program and online MiCorps Conference registration.
 - Enables grant applicants to submit applications electronically via the VSMP online application system.



This is a screen shot of the home page at www.micorps.net



The MiCorps Data Exchanges offers a variety of ways to search for volunteer collected lake and stream data.

- The MiCorps web-based Data Exchange Platform (www.micorps.net/data/) provides online access to volunteer monitoring data through a searchable database. The Data Exchange houses monitoring data collected by MiCorps member organizations, which meet rigorous quality assurance standards and operating procedures criteria.
- The MiCorps Data Exchange holds all of the data collected by the CLMP and Self-Help program, from 1974 to the present.
- All stream groups that receive a grant through the VSMP are required to enter their habitat and macroinvertebrate data into the Data Exchange.
- The project team maintains a separate website for the VRSCCP (www.glc.org/streamclean).

MiCorps Annual Volunteer Monitoring Conference

- In October 2005, 2006, 2007, and 2008, MiCorps has held two-day conferences at the Ralph A. MacMullan Conference Center on Higgins Lake. Planning for the 2009 conference is currently underway.
- The main purpose behind the annual conference is to bring volunteers and professionals together to share ideas, network, and learn about new innovations in monitoring. The conference is also a great way to attract new people and explain what MiCorps is and what it is doing.
- MiCorps staff holds free training on advanced monitoring topics on the afternoon of the first day of the conference. Previous sessions have included aquatic macroinvertebrate collection and identification workshops. The purpose of this training is to give VSMP member groups more advanced exposure to methods than what they received at the introductory training day earlier in the year.



On the first day of the conference, MiCorps staff offer additional training in MiCorps procedures—specifically macroinvertebrate collection and identification.



The second day of the conference is filled with speakers and discussion on various Michigan-centric water monitoring topics and issues.

- The second day of the conference is comprised of presentations and discussions led by MiCorps staff, an invited keynote speaker, leaders of volunteer monitor groups, and active volunteer monitors.
- Keynote speakers in the past 4 conferences have been:
 - 2005: Gary Kohlhepp and Ralph Bednarz, Water Bureau, Michigan DEQ
 - 2006: Dr. Michael Wiley, Aquatic Ecology Professor, University of Michigan
 - 2007: Pete Jackson, Volunteer Monitoring Coordinator, U.S. EPA Midwest Region
 - 2008: Linda Green, USDA-Cooperative State Research, Education, and Extension Service, Volunteer Monitoring Network
- Participants have noted in conference evaluations that they enjoy hearing from other volunteers. At the 2008 conference, many of the breakout sessions were led by MiCorps members sharing lessons they had learned from their monitoring experiences.

MiCorps Program Marketing and Promotion

- In order for the MiCorps program to succeed, MiCorps staff needed to continually spread the word about what MiCorps does. Program promotion is an ongoing and essential component of the MiCorps program.
- MiCorps staff have developed a MiCorps logo (see cover), and incorporated it into all program materials.
- The MiCorps webpage has a wealth of information explaining the program to newcomers.
- MiCorps staff composes press releases and announcements of MiCorps events, products, and accomplishments.
- Certificates of recognition are presented to lake and stream volunteers to let them know that their contributions were appreciated. This recognition is important for volunteer retention as well as for recruiting new volunteers.
- MiCorps staff gives presentations, lead discussions, and talk individually with a variety of groups and people in order to spread the word about MiCorps. Past events have included those hosted by the Michigan Association of Conservation Districts, the Stewardship Network, lake associations, Michigan Chapter of the North American Lake Management Society, DEQ and DNR staff, and other environmentally focused government and nonprofit groups.



The MiCorps monitor is an important part of program promotion. Specifically recognizing the successes of our member programs and highlighting volunteers' commitments is a useful way of earning program loyalty and attracting new volunteers.

MiCorps Semiannual Newsletter

- MiCorps staff writes and distributes a semi-annual newsletter: *The MiCorps Monitor*.
- The purpose of the newsletter is to highlight MiCorps successes, member programs, exceptional volunteers, and important issues in the field of water monitoring.
- The first issue was released in March 2005; the most recent issue was released August 2009.
- Starting in April 2009, the paper newsletter was converted to an electronic web-based newsletter format that was distributed via email and housed on the MiCorps website.

Recommendations

The following set of recommendations has been compiled by GLC and HRWC and is in regards to the future of the MiCorps Program.

- The VSMP monetarily supports the monitoring of benthic macroinvertebrates and habitat quality. It would be worthwhile to expand the program by monetarily supporting the monitoring of additional parameters, such as stream flow, water chemistry or others.
- Funding for VSMP grantees has remained static at \$50,000 per grantee cycle since the program conception. On average, each grantee receives between \$8,000 and \$13,000 over the length of the two-year grant. This low level of funding is not sufficient to get these programs started as the grantees spend too much time and effort trying to find other sources of income to support the monitoring activities. This problem will only get worse as funding remains static, the grantees are encouraged to try new monitoring parameters, and general costs increase. We recommend that the VSMP funding levels need to, at a minimum, be increased on an annual basis to at least account for inflation, and preferably increased substantially to provide the level of resources that the groups need to plan and staff comprehensive volunteer monitoring programs.
- Similarly, funding for the inland lakes subcontractor (MLSA) to implement the CLMP has remained static at \$25,000 even prior to MiCorps. The job of the inland lakes partner can be labor intensive and requires substantial funding for equipment, office supplies, and postage. Any costs above the grant funded amount must come from volunteer participation fees. Increases in fees lead to decreases in participation, which is counter to program goals. MLSA has done an excellent job in trimming costs, but fees have had to be increased to keep the program operational. Funding earmarked for the inland lakes subcontractor needs to be increased on an annual basis.
- Change the MiCorps contract timing to run from the beginning of January through the end of December. Winter is an uneventful time for MiCorps. Changing the timing would ensure that the fall conference, the CLMP annual report, all of the summer sampling, the launch of CLMP registration, and the review of the VSMP grant applications would not abruptly end if the MiCorps contract was not renewed at some point in the future. August and September are difficult months to end and start a contract for the MiCorps program.

Financials Summary

From 2004 to 2009, DEQ awarded funding to the GLC in the amount of \$1,154,683 to develop and implement MiCorps during its first five years. By the end of August 2009, over \$280,000 of these funds had been awarded to local grant recipients in support of volunteer programs and cleanup activities around the State. A significant amount of additional funding was also spent to train these grant recipients and other volunteers in sampling techniques to implement quality data collection programs for both lakes and streams. As current projects are completed over the next two years, it is expected that an additional \$75,000 from this contract amount will be paid out to grantees for the implementation of their programs.

All grants awarded under MiCorps require a local match of at least 25% of the total project cost, yet grantees have often exceeded this requirement to fully achieve their project objectives. As a result, the grant funds provided by DEQ over the last five years have leveraged an additional \$364,850 in resources in support of volunteer water quality activities in Michigan thus far, with nearly \$55,000 more expected over the next two years from current MiCorps projects. Additional enrollment fees - also considered local match - in the amount of \$118,675 have been contributed by participants in support of CLMP lake monitoring during this period. With these resources allocated toward the monitoring and improvement of Michigan's rivers and streams, MiCorps has made significant strides toward the preservation and protection of Michigan's water resources through volunteer action.

The following is an estimated summary of program costs supported by DEQ funding from September 2004 through August 2009 for each major program element, as outlined in this report. Not all program funds awarded for this contract period have been utilized to date.

Program Task	Estimated Cost
Volunteer Stream Monitoring Program (VSMP):	\$365,726
Cooperative Lakes Monitoring Program (CLMP):	\$207,183
Volunteer River, Stream, and Creek Cleanup Program (VRSCCP):	\$116,712
MiCorps Steering Committee:	\$21,083
Website and Data Exchange Platform:	\$180,045
MiCorps Annual Volunteer Monitoring Conference:	\$60,389
MiCorps Program Marketing and Promotion:	\$34,862
MiCorps Semiannual Newsletter:	\$46,735
Total DEQ Program Cost (through Aug. 2009):	\$1,032,735
Estimated Local Match (through Aug. 2009):	\$483,525 *

* Excludes match contributed by the GLC, HRWC, and MLSA.

Appendix A

MiCorps Volunteer Stream Monitoring Grants (Status Update Through 9/1/09)

2005 Grants

Grant #: 3003-VSM2005-01

Grantee: Muskegon River Watershed Assembly

Title: Muskegon River Water Monitoring Program

Watershed(s): Muskegon River and Tributaries

Funding Amount: \$8,198

Project Duration : 2005-2007 (project completed)

Final Report: Available on MiCorps website

The overall goal of this project was to incite citizen interest in water quality issues by training them to collect and record water monitoring data that will indicate the healthiness of the streams and rivers in the Muskegon River Watershed. A secondary goal was the provision of water monitoring data to assist the MRWA, local government officials and other organizations in their protective and restorative projects and to develop better ordinances.

Grant #: 3003-VSM2005-02

Grantee: Tip of the Mitt Watershed Council

Title: Volunteer Stream Monitoring Program

Watershed(s): Mullett Lake, Torch Lake, and Lake Charlevoix Tributaries

Funding Amount: \$12,104

Project Duration : 2005-2007 (project completed)

Final Report: Available on MiCorps website

The goal of Tip of the Mitt Watershed Council's Volunteer Stream Monitoring Program was to protect and improve the water quality of the streams of the northern Lower Peninsula of Michigan. The specific objectives included: collecting baseline data, characterizing stream ecosystems, identifying specific water quality problems, determining water quality trends, and informing and educating the public regarding water quality issues and aquatic ecology.

Grant #: 3003-VSM2005-03

Grantee: The Watershed Center Grand Traverse Bay

Title: Grand Traverse Stream Search

Watershed(s): Grand Traverse Bay Tributaries

Funding Amount: \$7,687.20

Project Duration: 2005-2007 (project completed)

Final Report: Available on MiCorps website

The main goal of the Grand Traverse Stream Search project was to continue to implement The Watershed Center's (TWC) Stream Search volunteer monitoring program. Stream Search, launched in June 2003, is TWC's bi-annual monitoring program which consists of groups of volunteers, led by a trained team leader, that are assigned to area streams to sample macroinvertebrates and complete habitat assessments in the spring and fall of each year.

In addition to providing valuable water quality data where TWC can track and detect early changes to a stream system, Stream Search serves as an important educational tool. Stream

Appendix A, continued.

Search will also help to increase interest and awareness of watershed issues and stewardship of the resource among area residents and visitors.

Grant #: 3003-VSM2005-04

Grantee: Lake Superior State University

Title: Citizen Science Volunteer Stream Monitoring for the St. Mary's River and its Sault Sainte Marie Watershed

Watershed(s): St. Mary's River, Sault Sainte Marie

Funding Amount: \$3,192.65

Project Duration: 2005-2007 (project withdrawn)

Final Report: No final report was completed by grantee

This program was initially designed to establish a volunteer monitoring program in the St. Mary's River and Sault Sainte Marie Watersheds. However, the grantee was not able to complete program objectives and the project was rescinded with partial payment for initial program development.

2006 Grants

Grant #: 3003-VSM2006-01

Grantee: Sierra Club Mackinac Chapter

Title: Michigan Sulfide Mining Project, Menominee River Component

Watershed(s): Menominee River Watershed

Funding Amount: \$18,426.00

Project Duration: 2006-2008 (project completed)

Final Report: Available on MiCorps website

The Sierra Club Mackinac Chapter received funding to expand monitoring efforts under its Michigan Sulfide Ore Mining Project into Menominee County. The purpose of the project was to document current and future water quality conditions at a minimum of ten sites along the Menominee River and tributaries (in the western Upper Peninsula) in an area of current and planned sulfide mining.

Grant #: 3003-VSM2006-02

Grantee: Clinton River Watershed Council

Title: Clinton River Watershed Council Adopt-a-Stream

Watershed(s): Clinton River

Funding Amount: \$5,500.00

Project Duration: 2006-2007 (project completed)

Final Report: Available on MiCorps website

The Clinton River Watershed Council (CRWC) proposed to significantly expand monitoring coverage provided by the council's Adopt-A-Stream program, and incorporate MiCorps standard protocols and quality assurance into its program. CRWC identified 27 sites for monitoring and planned to expand the number of sites to at least 50 by 2007. Twenty five of these sites were monitored at least once during a pilot program in 2005.

Appendix A, continued.

Grant #: 3003-VSM2006-03
Grantee: Barry County Conservation District
Title: Thornapple River Watershed Monitoring Project
Watershed(s): Thornapple River
Funding Amount: \$8,345.50
Project Duration: 2006-2008 (project completed)
Final Report: Available on MiCorps website

This project included monitoring of 21 sites on 15 waterbodies in the Thornapple watershed. These data will be used to identify potentially critical areas in the Thornapple River Watershed and determine locations where remedial actions will have the most beneficial effects. In addition, the project was intended to increase public awareness and involvement in watershed and water quality issues and establish a trained and committed network of volunteers to conduct an annual monitoring program beyond the scope of the proposed project.

Grant #: 3003-VSM2006-04
Grantee: Glen Lake Association, Inc.
Title: Hatlem Creek Benthic Invertebrate Monitoring Program
Watershed(s): Glen Lake/Crystal River Watershed
Funding Amount: \$6,474.00
Project Duration: 2006-2008 (project completed)
Final Report: Available on MiCorps website

The Hatlem Creek Benthic Invertebrate Monitoring Program consisted of monitoring the macroinvertebrate diversity and abundance in Hatlem Creek, the main tributary to Glen Lake (Leelanau County), and measuring basic water quality parameters to better understand the status of the tributary and its impact on the water quality of the lake and its fish and other wildlife.

Grant #: 3003-VSM2006-5
Grantee: Mid-Michigan Environmental Action Council
Title: Mid-Michigan Volunteer Stream Monitoring Program
Watershed(s): Red Cedar River
Funding Amount: \$9,311.00
Project Duration: 2006-2008 (project completed)
Final Report: Available on MiCorps website

Mid-MEAC proposed to monitor macroinvertebrate populations and aquatic habitat at eight sites along the Red Cedar River and nearby waters. Funding will allow Mid-MEAC to continue its volunteer monitoring efforts that began in 2002. Results will help Mid-MEAC develop a long-term record of change at sites, to evaluate remediation efforts underway, and to raise awareness of water quality issues in the area.

2007 Grants

Grant #: 3003-VSM2007-1
Grantee: Friends of the Rouge
Title: Rouge River Benthic Macroinvertebrate Monitoring Program
Watershed(s): Wayne, Oakland, and Washtenaw counties.

Appendix A, continued.

Funding Amount: \$14,548

Project Duration: 2008 (project completed)

Final Report: Available on MiCorps website

The goal of Friends of the Rouge's (FOTR) Benthic Macroinvertebrate Monitoring Program was to collect information on benthic macroinvertebrate communities in Rouge headwater streams to screen for problems and track the effect of streambank stabilization projects over time. Additionally, FOTR sought to increase public awareness of Rouge water quality issues to build support for corrective actions. Through this grant period, FOTR increased the number of trained team leaders and to improve sampling methods.

Grant #: 3003-VSM2007-2

Grantee: Michigan Lake and Stream Associations, Inc.

Title: Water Quality and Macroinvertebrate Diversity in Streams Entering and Leaving Michigan Lakes

Watershed(s): Thunder Bay River, Platte River, Grand River, Muskegon River

Funding Amount: \$11,504.00

Project Duration: 2007-2008 (project completed)

Final Report: Available on MiCorps website

The Michigan Lake and Stream Associations, Inc. (MLSA) received funding to collect biological, habitat, and water quality data for streams entering and leaving lakes monitored in the existing Cooperative Lakes Monitoring Program, another MiCorps volunteer program. MLSA established a new program to monitor inlet and outlet streams from selected associated lakes and established macroinvertebrate and habitat monitoring along with stream discharge and nutrient sampling. They proposed to begin the program around 14 lakes in four watersheds - a total of 56 monitoring sites.

Grant #: 3003-VSM2007-3

Grantee: River Raisin Watershed Council

Title: River Raisin Watershed Volunteer Macroinvertebrate Monitoring Project

Watershed(s): River Raisin Watershed

Funding Amount: \$14,913

Project Duration: 2008-2009 (project completed)

Final Report: Available on MiCorps website

The River Raisin Watershed Council expanded and improved their Adopt-A-Stream program on the River Raisin in Lenawee, Washtenaw, Monroe, and Jackson counties, including improved data interpretation, volunteer recruitment, and educational programs.

Grant #: 3003-VSM2007-4

Grantee: Upper Peninsula Resource Conservation & Development Council

Title: Central Upper Peninsula Volunteer Stream Monitoring Program

Watershed(s): Upper Dead River and Anna River watersheds

Funding Amount: \$13,901

Project Duration: 2007-2009 (project completed)

Final Report: Available on MiCorps website

The Upper Peninsula RC&D started a new program to monitor a total of seven sites across the Upper Dead River and Anna River watersheds. The Council worked with existing non-point

Appendix A, continued.

source programs to recruit volunteers for macroinvertebrate, bottom habitat and basic chemistry monitoring.

2007 Start-Up Grants:

Grant #: 3003-VSM2007-5

Grantee: Marguerite Gahagan Nature Preserve

Title: Upper AuSable River Watershed Monitoring Project

Watershed(s): Upper AuSable River Watershed

Funding Amount: \$2,980

Project Duration: 2007 (project completed)

Final Report: Not posted to website (less formal final reporting requirements)

The project focused on the Upper AuSable River Watershed in Roscommon, Crawford, Otsego and Oscoda Counties. The Watershed includes the South Branch that begins in Lake St. Helen, the Main Branch that begins in between Gaylord and Grayling, the East Branch begins in Hartwick Pines State Park, the North Branch that begins in Chub Lake north of Hartwick Pines State Park, and the Big Creek that begins east of Lovells in Crawford and Oscoda Counties.

Grant #: 3003-VSM2007-6

Grantee: Huron Pines

Title: Pine River / Van Etten Lake Coalition

Watershed(s): Pine River / Van Etten Lake Watersheds

Funding Amount: \$1,792.90

Project Duration: 2007 (project completed)

Final Report: Not posted to website (less formal final reporting requirements)

The Pine River/Van Etten Lake (PRVEL) Coalition completed a project to develop an ongoing stream monitoring program as a supplement to existing state and local agency programs. This program was designed to screen for potential problem conditions and to establish baseline conditions and trends for our streams that would otherwise go very lightly monitored or totally unmonitored. It was proposed that the initial program would involve the selection of up to four sites for routine sampling twice per year. Both Van Etten Creek and the East Branch of the Pine River, the two most stressed tributaries, would be monitored at least one location each.

Grant #: 3003-VSM2007-7

Grantee: Chikaming Open Lands

Title: Galien River Start-up Stream Monitoring Project

Watershed(s): Galien River Watershed

Funding Amount: \$1,811.40

Project Duration: 2007 (project completed)

Final Report: Not posted to website (less formal final reporting requirements)

A new volunteer stream monitoring program was proposed to raise public and local government awareness of water quality issues and foster ownership of water quality in the Watershed. Longer term goals for volunteer stream monitoring are to establish a data base of credible information concerning the condition of the watershed when talking with local government entities and to give a measurement of the effect of buffers, conservation easements and BMP's being implemented in the watershed on water quality.

Appendix A, continued.

2008 Grants

Grant #: 3003-VSM2008-01

Grantee: Friends of the St. Clair River Watershed

Title: Friends of the St. Clair River Watershed Stream Leaders

Watershed(s): St. Clair River watershed

Funding Amount: \$13,297

Project Duration: 2008-2010 (open)

Final Report: Not yet submitted by grantee

The Friends of the St. Clair River Watershed have proposed to assess habitat and conduct macroinvertebrate monitoring in the St. Clair River Watershed.

Grant #: 3003-VSM2008-02

Grantee: The Nature Conservancy

Title: Shiawassee River Watershed Benthic Macroinvertebrate Monitoring Program

Watershed(s): Shiawassee River watershed

Funding Amount: \$13,297

Project Duration: 2008-2010 (open)

Final Report: Not yet submitted by grantee

The Nature Conservancy is working in partnership with the Livingston County Drain Commissioner's Office to conduct assess habitat and conduct macroinvertebrate monitoring in the Shiawassee River watershed in Shiawassee and Livingston Counties.

Grant #: 3003-VSM2008-03

Grantee: Pine River/Van Etten Lake (PRVEL) Coalition

Title: Pine River/Van Etten Lake Monitoring

Watershed(s): Pine River/Van Etten Lake watershed

Funding Amount: \$7,420

Project Duration: 2008-2010 (open)

Final Report: Not yet submitted by grantee

The overall goal of this project is to establish baseline benthic macro invertebrate data and to monitor the health of our watershed as we go forward in the future. It is desired to ensure that the river and associated feeder streams do not significantly degrade further in their ability to sustain a cold water fishery. This project will also help to show any changes in the stream condition, as told through the macro invertebrate populations.

Grant #: 3003-VSM2008-04

Grantee: Marguerite Gahagan Nature Preserve

Title: Upper AuSable River Watershed Water Quality Monitoring Project

Watershed(s): Upper AuSable River Watershed

Funding Amount: \$13,297

Project Duration: 2008-2010 (open)

Final Report: Not yet submitted by grantee

The primary goal of this project is to produce quality-assured data on the water quality of the watershed to establish baseline data for the AuSable River. Specifically, site monitoring will include benthic macroinvertebrate specimen collection and identification to the family level, habitat assessment, and the monitoring of dissolved oxygen and pH levels. Success of this

Appendix A, continued.

project will be measured by the production of verifiable data that is of use to the Michigan Department of Environmental Quality and others who make stewardship decisions within the AuSable River watershed.

2009 Grants

Grant #: 3003-VSM2009-1

Grantee: Muskegon County Conservation District

Title: Duck Creek Stream Monitoring Program

Watershed(s): Duck Creek (Michigan)

Funding Amount: \$6,231

Project Duration: 2009-2011 (open)

Final Report: Not yet submitted by grantee

The 11,500-acre Duck Creek watershed lies entirely within Muskegon County and is the only watershed in the county that is designated a high-quality watershed with no TMDL listing. However, preliminary monitoring has shown an increase in water temperature and sedimentation; increases in nutrients, nuisance algal blooms, and occurrences of exotic species; and general degradation of fish and wildlife habitat. The Muskegon Conservation District and Duck Creek Watershed Assembly are striving to halt this decline and avoid an eventual TMDL listing. By identifying the sources and proactively addressing the causes of these preliminary findings, the project team hopes to preempt any major water quality issues and the associated costs (and inherent inadequacies) of mitigation.

Grant #: 3003-VSM2009-3

Grantee: Superior Watershed Partnership

Title: Millecoquins River Watershed Volunteer Stream Monitoring Program

Watershed(s): Millecoquins River (Michigan)

Funding Amount: \$9,288

Project Duration: 2009-2011 (open)

Final Report: Not yet submitted by grantee

The Millecoquins River watershed has experienced impacts from historic and recent land uses such as logging, agriculture (cattle), and increasing development and recreational pressures. Recent evaluations of tributaries of the Millecoquins River watershed by the Michigan DEQ indicate increasing water temperatures and changes in the fish community to more of a warm water fishery rather than a coldwater fishery as they are designated. In addition, changes have also been observed by local landowners. Goals of the project include fostering landowner and citizen awareness, stewardship and surveillance of the watershed; producing quality-assured data that can be used by DEQ biologists as a screening tool; making results available to interested parties; and utilizing these data to document water quality changes over time and existing and potential sources of impact.

Grant #: 3003-VSM2009-4

Grantee: Clinton River Watershed Council

Title: Adopt-a-Stream Improvement and Expansion Project

Watershed(s): Clinton River (Michigan)

Funding Amount: \$1,995

Project Duration: 2009-2011 (open)

Final Report: Not yet submitted by grantee

Appendix A, continued.

Data collected from three proposed new sites will add to the Clinton River Watershed Council's (CRWC) current Adopt-a-Stream program efforts to develop and maintain a long-term assessment of stream health throughout the watershed. The North Branch historically has not received much attention from CRWC's Adopt-a-Stream program due to limited funding and lack of volunteers. With additional funding, hopes of these site establishments will further the measurable data and allow for a more detailed assessment of the overall condition of the watershed, including identification of macroinvertebrates to the Family level.

Grant #: 3003-VSM2009-6

Grantee: Jackson County Conservation District

Title: Upper Grand River Watershed Adopt-a-Stream Program

Watershed(s): Upper Grand River (Michigan)

Funding Amount: \$20,979

Project Duration: 2009-2011 (open)

Final Report: Not yet submitted by grantee

The Upper Grand River Watershed Adopt-A-Stream Program, initiated in 2007, began as a partnership among the Jackson County Conservation District, Dahlem Environmental Education Center, and Upper Grand River Watershed Alliance. The Adopt-A-Stream Program helps achieve the public education and involvement goals of the Jackson Phase II communities and the Upper Grand River Watershed Management Plan by using trained adult volunteers to collect and identify benthic macroinvertebrates, conduct stream habitat assessments, and take other water quality measurements following the methods outlined in the MDEQ-approved Quality Assurance Project Plan. With funding under this grant, the partner organizations are working to further develop and strengthen the Upper Grand River Watershed Adopt-A-Stream program into a sustainable and watershed-wide monitoring program.

2009 Start-Up Grants:

Grant #: 3003-VSM2009-7

Grantee: Michigan Council of Trout Unlimited / Kalamazoo Valley Chapter

Title: MCTU / KVCTU Stream Monitoring Project

Watershed(s): Kalamazoo River (Michigan)

Funding Amount: \$1,940

Project Duration: 2009-2011 (open)

Final Report: Not yet submitted by grantee

The Michigan Council and Kalamazoo Valley Chapter of Trout Unlimited are teaming up to monitor macroinvertebrates and water quality in Spring Brook and Dickinson Creek within the Kalamazoo River watershed. During 2009, the project team will be developing a program that they plan to implement in 2010. The program developed under this grant will also serve as a template for other chapters of Trout Unlimited in Michigan. The long term goal of this program is to increase monitoring of the state's coldwater streams by Trout Unlimited. There are several very active and motivated volunteers in the Kalamazoo Valley Chapter who will be assisting the Michigan Council of Trout Unlimited in designing and implementing this monitoring program.

Grant #: 3003-VSM2009-8

Grantee: Branch County Conservation District

Title: Coldwater River Watershed Monitoring Project

Appendix A, continued.

Watershed(s): Coldwater River (Michigan)

Funding Amount: \$2,000

Project Duration: 2009-2011 (open)

Final Report: Not yet submitted by grantee

The grant funding will be used to develop a Coldwater River Watershed volunteer-based monitoring plan that can potentially receive full funding in the near future. This will include establishing a Project Oversight Committee, identifying key parameters and locations to be monitored, cataloging existing and needed equipment for long-term monitoring, and identifying potential partners for long-term support of the program. In addition, the project team plans to develop a public outreach strategy for local media releases and announcements related to their ongoing work.

Appendix B.

The following lakes were registered for the 2009 season of the CLMP. This list contains 220 unique lakes.

Lake	County
Badger	Alcona
Hubbard	Alcona
Jewel	Alcona
Vaughn	Alcona
Cedar	Alc/Iosco
Deer	Alger
Eagle	Allegan
Goshorn	Allegan
Hutchins	Allegan
Osterhout	Allegan
Wetmore	Allegan
Beaver	Alpena
Bellaire	Antrim
Clam	Antrim
Torch North	Antrim
Torch South	Antrim
Barlow	Barry
Cobb	Barry
Duncan	Barry
Fair	Barry
Little Long	Barry
Payne	Barry
Upper Crooked	Barry
Ann	Benzie
Crystal	Benzie
Platte (Big)	Benzie
Sanford	Benzie
Little Paw Paw	Berrien
Gilead	Branch
Randall	Branch
Duck	Calhoun
Birch	Cass
Birch	Cass
Christiana	Cass
Coverdale	Cass
Diamond	Cass
Eagle	Cass
Juno	Cass
Long	Cass
Magician	Cass
Painter	Cass
Puterbaugh	Cass
Shavehead	Cass
Twin (Big)	Cass

Lake	County
Twin (Little)	Cass
Wildwood	Cheboygan
Bass	Chippewa
Arnold	Clare
Lake George	Clare
Lily	Clare
Shingle	Clare
Windover	Clare
Round	Clinton
Margrethe	Crawford
Louise	Dickinson
Mary	Dickinson
Byram	Genesee
Fenton	Genesee
Marl	Genesee
Silver	Genesee
Hunter	Gladwin
Lancelot	Gladwin
Lancer	Gladwin
Beatons	Gogebic
Dinner	Gogebic
Long	Gogebic
Moon	Gogebic
Arbutus	Grand Traverse
Island	Grand Traverse
Spider	Grand Traverse
Diane	Hillsdale
Lansing	Ingham
Chain	Iosco
Long	Iosco
Van Etten	Iosco
Mary	Iron
Perch	Iron
Isabella	Isabella
Big Portage	Jackson
Brown	Jackson
Clark	Jackson
Clear	Jackson
Farwell	Jackson
Mirror	Jackson
Mud	Jackson
Pleasant	Jackson
Sweezey	Jackson
Vineyard	Jackson

Lake	County
Barton	Kalamazoo
Crooked	Kalamazoo
Gourdneck	Kalamazoo
Gull	Kalamazoo
Indian	Kalamazoo
Sherman	Kalamazoo
Woods	Kalamazoo
Bear	Kalkaska
Big Blue	Kalkaska
Big Twin	Kalkaska
Crooked	Kalkaska
Cub	Kalkaska
Eagle	Kalkaska
Indian	Kalkaska
Little Twin	Kalkaska
North Blue	Kalkaska
Papoose	Kalkaska
Pickerel	Kalkaska
Squaw	Kalkaska
Starvation	Kalkaska
Big Pine	Kent
Bostwick	Kent
Cascade	Kent
Emerald	Kent
Freska	Kent
High	Kent
Murray	Kent
Reeds	Kent
Gratiot	Keweenaw
Big Star	Lake
Harper	Lake
Wolf	Lake
Nepessing	Lapeer
Brooks	Leelanau
Fisher (Big)	Leelanau
Fisher (Little)	Leelanau
Glen (Big)	Leelanau
Glen (Little)	Leelanau
Devils	Lenawee
Evans	Lenawee
Posey	Lenawee
Round	Lenawee
Wamplers	Lenawee
Baseline	Liv/Wash

Appendix B, continued.

Lake	County
Chemung	Livingston
Earl	Livingston
Gallagher	Livingston
Gut	Livingston
Hamburg	Livingston
Onieda	Livingston
Ore	Livingston
Round	Livingston
Silver (G.Oak)	Livingston
Strawberry	Livingston
Triangle	Livingston
Bear	Manistee
Little	Marquette
Mehl	Marquette
Chancellor (Blue)	Mason
Hamlin (Lower)	Mason
Hamlin (Upper)	Mason
Oxbow	Mason
Blue	Mecosta
Canadian (Main)	Mecosta
Canadian (West)	Mecosta
Horsehead	Mecosta
Mecosta	Mecosta
Pretty	Mecosta
Round	Mecosta
School Section	Mecosta
Sanford	Midland
Baldwin	Montcalm
Clifford	Montcalm
Derby	Montcalm
Muskellunge	Montcalm
Avalon	Montmorency
East Twin	Montmorency
West Twin	Montmorency
Mona	Muskegon
Bills	Newaygo
Bills (Waits)	Newaygo
Emerald	Newaygo
Fremont	Newaygo
Hess	Newaygo
Kimball	Newaygo
Pickereel	Newaygo
Robinson	Newaygo
Sylvan	Newaygo

Lake	County
Webinguaw	Newaygo
Cranberry	Oakland
Deer	Oakland
Hawk	Oakland
Kirkwood	Oakland
Lakeville	Oakland
Middle Straits	Oakland
North Buckhorn	Oakland
Orion	Oakland
Oxbow	Oakland
Parke	Oakland
Taylor	Oakland
Crystal	Oceana
Pentwater	Oceana
Stony	Oceana
Rifle	Ogemaw
Big Lake	Osceola
Center	Osceola
Hicks	Osceola
Indian	Osceola
Big Bradford	Otsego
Bradford (Little)	Otsego
Five Lakes (2)	Otsego
Five Lakes (3)	Otsego
Perch	Otsego
Viking	Otsego
Crockery	Ottawa
Higgins (North)	Roscommon
Higgins (South)	Roscommon
Houghton (1)	Roscommon
Houghton (2)	Roscommon
Clear	St. Joseph
Klinger	St. Joseph
Perrin	St. Joseph
Templene	St. Joseph
Wahbememe	St. Joseph
Corey	St. Joseph
Bankson	Van Buren
Cedar	Van Buren
Crooked (Big)	Van Buren
Crooked (Little)	Van Buren
Fish	Van Buren
Gravel	Van Buren
Silver	Van Buren

Lake	County
Portage	Wash/Liv
Blue Heron	Wayne
Muskoday	Wayne
Okonoka	Wayne
Takoma	Wayne
Pleasant	Wexford
Stoneledge	Wexford

Appendix C.

The following data are a summary of the measurements taken during the 2008 CLMP field season.

Secchi Disk Transparency

- 170 lakes (194 basins) were sampled.
- Total number of measurements = 3142
- Mid-May thru mid-September measurements = 2780
- Transparency data summary:
 - Transparency range: 1.5-50 feet
 - Mean: 12.7 feet
 - Median: 11.5 feet
 - TSI_{SD}*: 27-68 (average: 41.8)

*For more information on TSI measurements, please see the CLMP annual reports at:
<http://www.micorps.net/lakereports.html>

Spring Total Phosphorus

- 140 lakes were sampled
- 169 total phosphorus samples collected/analyzed
- Data summary:
 - range: <5-69 ug/l
 - mean: 14.0 ug/l
 - median: 10.0 ug/l
- 29 QA/QC samples were taken.
 - 19 replicate samples
 - 5 side-by-side samples
 - 1 side-by-side replicates
 - 2 field blanks
 - 2 equipment blanks

Summer Total Phosphorus

- 179 lakes were sampled
- 197 total phosphorus samples collected/analyzed
- Data summary:
 - range: <5-87 ug/l
 - mean: 14.0 ug/l
 - median: 12 ug/l
 - TSI_{TP}: <27 - 69 (39.6 average)
- 39 QA/QC samples
 - 23 replicate samples
 - 12 side-by-side samples
 - 2 side-by-side replicates
 - 2 field blanks
 - 2 equipment blanks

Appendix C, continued.

Chlorophyll a

- 121 lakes were sampled
- 562 volunteer samples were taken
- Data Summary:
 - range: <1-46 ug/l
 - mean: 4.0 ug/l
 - median: 2.9 ug/l
 - TSI_{CHL}: <31-65 (average: 40.4)
- 37 QA/QC samples
 - 15 replicate samples
 - 11 side-by-side samples (SOP field filtered)
 - 11 side-by-side sample reps (SOP field filtered)

Dissolved Oxygen/Temperature

- 40 lakes were sampled
- Over 4000 dissolved oxygen/temperature measurements were taken
- 282 oxygen/temperature profiles were created
- Between 5-27 measurements were made for each profile

Aquatic Plant ID and Mapping

- 7 transects were mapped on Big Fisher Lake
- 15 transects were mapped on Viking Lake

Exotic Aquatic Plant Watch (Pilot)

- 152 sites were monitored in Glen Lake
- 46 sites were monitored in Little Glen Lake
- 11 sites were monitored in Upper Hamlin Lake
- 7 sites were monitored on Little Fisher Lake

Appendix D.

Projects under the Volunteer River, Stream, and Creek Cleanup Program (VRSCCP)

2005 Grants

Grant #: 3003-VRSCCP2005-1

Grantee: City of Livonia

Title: Rouge River Rescue

Watershed(s): Rouge River

Funding Amount: \$1,183.12

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To conduct the annual Rouge River rescue day at Rotary Park to clean an approximate 1.5-mile stretch of the Tarabusi Creek, a tributary to the Rouge River, which runs through the nature preserve associated with Rotary Park.

Grant #: 3003-VRSCCP2005-2

Grantee: City of Cadillac

Title: Clam River Cleanup

Watershed(s): Clam River

Funding Amount: \$2,990

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To clear 1.6 miles of the Clam River and its adjacent Greenway in the City of Cadillac from refuse and natural debris.

Grant #: 3003-VRSCCP2005-3

Grantee: City of Muskegon – Department of Public Works

Title: Muskegon Clean Streams 2005

Watershed(s): Ruddiman and Ryerson Creeks

Funding Amount: \$765

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To conduct a cleanup event for the Ruddiman Creek and Ryerson Creek within the City of Muskegon. Volunteers worked to collect and remove trash and automobile tires.

Grant #: 3003-VRSCCP2005-4

Grantee: Lake Superior State University

Title: Ashmun Creek Cleanup

Watershed(s): Ashmun Creek

Funding Amount: \$1,716

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To remove foreign object debris from the creek and its banks and draw attention to this overlooked resource while drawing additional people into the group of residents active in protecting local resources in general.

Grant #: 3003-VRSCCP2005-5

Grantee: City of Battle Creek

Title: River Conservation Day Throughout the Kalamazoo River Watershed and Beyond

Watershed(s): Kalamazoo River

Appendix D, continued.

Funding Amount: \$5,000

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To engage eight communities within the Kalamazoo River Watershed to participate in Global Citizen's River Conservation Day to collect garbage, tires, nuisance brush and to mark storm drains.

Grant #: 3003-VRSCCP2005-6 (**Project Withdrawn**)

Grantee: Crawford-Roscommon Conservation District

Title: AuSable River Cleanup

Watershed(s): AuSable River

Funding Amount: Grantee opted out of grant (award was \$831)

Final Report: No Report

To complete a cleanup event to reduce the volume of trash in the South Branch of the AuSable River by 2,500 pounds, increase the knowledge of river users about littering issues, and increase the knowledge of community volunteers.

Grant #: 3003-VRSCCP2005-7

Grantee: Genesee County Drain Commissioner's Office

Title: Flint River and Tributaries Cleanup

Watershed(s): Flint River

Funding Amount: \$4,677

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To clean up various locations along the Flint River from City of Lapeer to City of Flushing, MI, and along Farmers Creek.

Grant #: 3003-VRSCCP2005-8

Grantee: City of Ann Arbor Parks and Recreation Services

Title: Huron River Renaissance Cleanup

Watershed(s): Huron River

Funding Amount: \$2,252

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To hold three Huron River cleanup days to collect trash found throughout Gallup and Furstenburg Parks in the Huron River and on the surrounding riverbanks.

Grant #: 3003-VRSCCP2005-9

Grantee: Columbia Township

Title: Black River Nature Sanctuary-Dump Cleanup

Watershed(s): Black River

Funding Amount: \$626.70

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To remove old refuse from the side of the bluff along Old Maid's Creek floodplain on the South Branch of the Black River.

Grant #: 3003-VRSCCP2005-10

Grantee: Barry Conservation District

Title: 10th Thornapple River Cleanup

Appendix D, continued.

Watershed(s): Thornapple River

Funding Amount: \$3,151

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To remove large debris and trash from along the banks of the Thornapple River and within the river channel.

Grant #: 3003-VRSCCP2005-11

Grantee: City of Buchanan

Title: McCoy Creek Trail Cleanup

Watershed(s): McCoy Creek

Funding Amount: \$600

Final Report: Available upon request; submitted to DEQ at end of 2005 grant cycle

To clean approximately three miles of creek within the city limits of Buchanan to restore and beautify the creek.

2006 Grants

Grant #: 3003-VRSCCP2006-01

Grantee: Presque Isle County – Ocqueoc River Commission

Title: Ocqueoc River Cleanup Celebration

Watershed(s): Ocqueoc River

Funding Amount: \$1,844.40

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To complete a spring cleaning and maintenance of the Ocqueoc River and to attract residents to activities which encourage personal attachment and an ownership of sorts.

Grant #: 3003-VRSCCP2006-02

Grantee: City of Detroit Recreation Department

Title: Rouge Park River Cleanup

Watershed(s): Rouge River

Funding Amount: \$4,828.50

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To clean six areas along the river and conduct other park improvement projects.

Grant #: 3003-VRSCCP2006-04

Grantee: Houghton-Keweenaw Conservation District

Title: Gratiot River Cleanup

Watershed(s): Gratiot River

Funding Amount: \$525

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To clean up 4,000 feet of the Gratiot River by removing bagged trash, tires, lumber and woody obstructions, metal and other non-natural debris, and brush, as needed.

Grant #: 3003-VRSCCP2006-05

Grantee: Clinton County

Title: Friends of the Maple River Kick-off Cleanup

Appendix D, continued.

Watershed(s): Maple River

Funding Amount: \$1,400

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To clean up an area where illegal dumping had begun in the 1960s along the Maple River by removing waste and recyclable items.

Grant #: 3003-VRSCCP2006-06

Grantee: Arenac Conservation District

Title: Rifle River Cleanup

Watershed(s): Rifle River

Funding Amount: \$3,000

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To continue clean up efforts along the Rifle River starting at the Rifle River Recreation Area to the Moffat Bridge, approximately 38 miles.

Grant #: 3003-VRSCCP2006-10

Grantee: Hamburg Township

Title: Huron River Clean-Up Day

Watershed(s): Huron River

Funding Amount: \$5,000

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To remove trash and garbage from the banks and woody debris areas, reposition woody debris damming flow under the trestles, and affix some fallen trees to the riverbank to help stabilize the river banks and prevent erosion.

Grant #: 3003-VRSCCP2006-12

Grantee: Macomb County Public Works Office

Title: Road-Stream Crossing Cleanup in the Clinton River East and Red Run Subwatersheds

Watershed(s): Clinton River East and Red Run

Funding Amount: \$3,085

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To conduct two clean up days to coincide with existing regional events: River Day and Clinton Clean Up.

Grant #: 3003-VRSCCP2006-13

Grantee: St. Clair County Health Department

Title: X-STREAM Makeover

Watershed(s): Mill Creek, Stocks Creek, and the Marine City Dredge Cut

Funding Amount: 1,623.24

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To host the second annual River Day with hands-on involvement in the restoration and protection of the rivers and streams of St. Clair County's watersheds.

Grant #: 3003-VRSCCP2006-15

Grantee: Barry Conservation District

Title: 11th Thornapple River Clean Up

Appendix D, continued.

Watershed(s): Thornapple River

Funding Amount: \$3,555

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To hold the 11th annual Thornapple River Clean-up and expand the volunteer base upstream into Eaton County and downstream through the Cascade and Ada (Kent County) areas.

Grant #: 3003-VRSCCP2006-17

Grantee: Genesee County Drain Commissioner's Office

Title: Flint River and Tributary Cleanup

Watershed(s): Flint River

Funding Amount: \$4,513.40

Final Report: Available upon request; submitted to DEQ at end of 2006 grant cycle

To clean up nine sites along the Flint River from the City of Lapeer to the City of Flushing, MI, and along Farmers Creek.

2007 Grants

Grant #: 3003-VRSCCP2007-1

Grantee: Allegan Conservation District

Title: Gun River Watershed Cleanup Project

Watershed(s): Gun River

Funding Amount: \$860

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To conduct a watershed-wide cleanup from the mouth of the Gun River to the headwaters at Gun Lake.

Grant #: 3003-VRSCCP2007-2

Grantee: Berrien County

Title: Galien River Volunteer Stream Cleanup Project

Watershed(s): Galien River

Funding Amount: \$1,528

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To clean up at least eight sites in a six-township area, plus road/stream crossings as needed.

Grant #: 3003-VRSCCP2007-3

Grantee: Calhoun Conservation District

Title: Rice Creek & Battle Creek River Watershed River Cleanup

Watershed(s): Rice Creek and Battle Creek River

Funding Amount: \$5,000

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To clean up over seven miles of stream in the Rice Creek and Battle Creek watersheds, including road/stream crossings as needed.

Grant #: 3003-VRSCCP2007-4

Grantee: Canton Township

Title: River Day 2007 (Rouge River)

Appendix D, continued.

Watershed(s): Rouge River

Funding Amount: \$3,075

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To remove trash and manage woody debris and log jams along the Lower Rouge River.

Grant #: 3003-VRSCCP2007-5

Grantee: City of Ann Arbor

Title: A2 Huron River Cleanup

Watershed(s): Huron River

Funding Amount: \$3,896

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To clean up a 2.5-mile stretch of the Huron River in Gallup Park and a 3.5-mile stretch of the river between Argo & Gallup Parks.

Grant #: 3003-VRSCCP2007-6

Grantee: City of Big Rapids

Title: Mitchell Creek Cleanup Project

Watershed(s): Mitchell Creek

Funding Amount: \$1,150

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To clean up trash and debris along approximately 1.5 miles of Mitchell Creek within the city limits of Big Rapids.

Grant #: 3003-VRSCCP2007-7

Grantee: Dearborn Heights Watershed Stewards Commission

Title: Rouge River Cleanup at Parkland Park

Watershed(s): Rouge River

Funding Amount: \$2,213

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To remove trash and debris along a 1.25-mile reach of the Rouge River in the vicinity of Parkland Park and south within the city limits of Dearborn Heights.

Grant #: 3003-VRSCCP2007-8

Grantee: Muskegon Conservation District

Title: Muskegon County River and Creek Cleanup Day

Watershed(s): Muskegon River, White River, Duck Creek, Bear Creek, and Little Black Creek

Funding Amount: \$1,247

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To clean up approximately 30 miles of waterway in Muskegon County, including sections of the Muskegon River, White River, Duck Creek, Bear Creek, and Little Black Creek.

Grant #: 3003-VRSCCP2007-9

Grantee: River Raisin Watershed Council

Title: River Rescue! River Raisin Cleanup Project

Watershed(s): River Raisin

Appendix D, continued.

Funding Amount: \$4,750

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To clean up debris in and along the banks of the River Raisin and its tributaries through the River Raisin Stewardship Mini-Grant Program.

Grant #: 3003-VRSCCP2007-10

Grantee: Rose Township

Title: Stiff's Millpond Cleanup

Watershed(s): Shiawassee River

Funding Amount: \$500

Final Report: Available upon request; submitted to DEQ at end of 2007 grant cycle

To clean up trash, tires, and construction debris around a mile of shoreline of Stiff's Millpond, a portion of the Shiawassee River, in Oakland County.

2008 Grants

Grant #: 3003-VRSCCP2008-1

Grantee: Holton Township

Title: Cedar Creek Cleanup Project

Watershed(s): Cedar Creek

Funding Amount: \$1,250

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To clean trash and other debris along a one-mile stretch of Cedar Creek near the village of Holton in Holton Township.

Grant #: 3003-VRSCCP2008-4

Grantee: City of Detroit General Services Department

Title: 2008 Rouge Park River Cleanup

Watershed(s): Rouge River

Funding Amount: \$2,385

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To remove debris in and along the banks of the Rouge River and its tributaries in the Rouge Park area.

Grant #: 3003-VRSCCP2008-5

Grantee: Grand Traverse Conservation District

Title: 4th Annual Boardman River Clean Sweep-2008

Watershed(s): Boardman River

Funding Amount: \$1,005

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To remove trash along all navigable segments of the Boardman River, totaling approximately 20 miles.

Grant #: 3003-VRSCCP2008-6

Grantee: Village of Dimondale

Title: Mill Stream Cleanup

Appendix D, continued.

Watershed(s): Grand River

Funding Amount: \$1,415

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To remove litter, debris and the remains of an old grist mill from a mill stream connected to the Grand River.

Grant #: 3003-VRSCCP2008-8

Grantee: Ingham Conservation District

Title: Red Cedar Cleanup

Watershed(s): Red Cedar River

Funding Amount: \$2,269

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

Two clean a two-mile section of river from the Harrison Road Bridge on the campus of Michigan State University to approximately 200 yards east of the Hagadorn Rd Bridge.

Grant #: 3003-VRSCCP2008-11

Grantee: Dearborn Heights Watershed Stewards Commission

Title: 2008 Rouge River Creek Clean-up

Watershed(s): Rouge River

Funding Amount: \$2,585

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To remove trash and debris in and along the Rouge River within the City of Dearborn Heights.

Grant #: 3003-VRSCCP2008-13

Grantee: Sweetwater Township

Title: Pere Marquette River Clean-Up

Watershed(s): Pere Marquette River

Funding Amount: \$900

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To collect garbage and trash from approximately 22 miles of the Pere Marquette River.

Grant #: 3003-VRSCCP2008-14

Grantee: St. Joseph County Conservation District

Title: River Country Stream Cleanup

Watershed(s): Rocky, Fawn, and Pigeon rivers, and the Nottawa Creek

Funding Amount: \$2,720

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To remove trash and debris along a combined 25 miles of waterway on the Rocky, Fawn, and Pigeon rivers, and the Nottawa Creek.

Grant #: 3003-VRSCCP2008-19

Grantee: Barry Conservation District

Title: 13th Thornapple River Clean-up

Watershed(s): Thornapple River

Funding Amount: \$2,625

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

Appendix D, continued.

To remove trash from 80 river miles and increase bank clean-up effort to cover public areas in three cities and villages along the Thornapple River.

Grant #: 3003-VRSCCP2008-21

Grantee: Missaukee Conservation District

Title: Missaukee/Muskegon River Cleanup

Watershed(s): Missaukee/Muskegon River

Funding Amount: \$1,110

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To clean up two sections of the Muskegon River by removing trash and debris.

Grant #: 3003-VRSCCP2008-22

Grantee: City of Monroe Commission on the Environment

Title: River Raisin Cleanup

Watershed(s): River Raisin

Funding Amount: \$2,000

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To clean up approximately two miles of the River Raisin in the Monroe area.

Grant #: 3003-VRSCCP2008-23

Grantee: Northeast Michigan Council of Governments

Title: 2008 Big Splash Clean Up

Watershed(s): Sturgeon and Indian Rivers

Funding Amount: \$1,000

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To clean up six river miles on the Sturgeon and Indian rivers.

Grant #: 3003-VRSCCP2008-26

Grantee: Shiawassee County Health Department

Title: 11th Annual Shiawassee River Cleanup

Watershed(s): Shiawassee River

Funding Amount: \$2,140

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To remove trash and debris from the Shiawassee River on eight miles of stream.

Grant #: 3003-VRSCCP2008-27

Grantee: Hamburg Township

Title: 3rd Annual Hamburg Township Huron River Cleanup Day

Watershed(s): Huron River

Funding Amount: \$3,610

Final Report: Available upon request; submitted to DEQ at end of 2008 grant cycle

To remove trash, garbage and debris in a three-mile section of the Huron River.

Appendix D, continued.

2009 Grants

Grant #: 3003-VRSCCP2009-2

Grantee: Chesaning Area Parks and Recreation Commission

Title: First Annual Chesaning Township Shiawassee River Cleanup

Watershed(s): Shiawassee River

Funding Amount: \$1,795

Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

To clean up approximately three miles of the Shiawassee River in Chesaning Township, Saginaw County, by removing trash and debris from the water and along the river banks.

Grant #: 3003-VRSCCP2009-3

Grantee: City of Hudson

Title: Clean the Bean 2

Watershed(s): Bean Creek

Funding Amount: \$2,125

Final Report: Not yet submitted by grantee

To clean up a one-mile stretch of the Bean Creek that flows within the municipal boundaries of the City of Hudson.

Grant #: 3003-VRSCCP2009-4 (**Project Withdrawn**)

Grantee: Isabella County Community Development Department

Title: Chippewa River Cleanup

Watershed(s): Chippewa River

Funding Amount: Grantee opted out of grant due to financial constraints (award was \$1,965)

Final Report: No report

To clean up the Chippewa River in high use areas by foot and in canoes along roughly 12 miles of well-traveled corridor.

Grant #: 3003-VRSCCP2009-5

Grantee: Detroit Area Council Boy Scouts of America

Title: River Clean Up

Watershed(s): Rifle River

Funding Amount: \$2,445

Final Report: Not yet submitted by grantee

To clean up trash and debris from the mainstream and banks of the Rifle River as well as the West Branch of the Rifle.

Grant #: 3003-VRSCCP2009-6

Grantee: Dearborn Heights Watershed Stewards Commission

Title: Ecorse Creek Clean-Up Dearborn Heights - 2009

Watershed(s): Ecorse Creek

Funding Amount: \$2,134.90

Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

Appendix D, continued.

To remove trash and debris from within the banks of approximately four miles of the Ecorse Creek within the City of Dearborn Heights to make a direct positive impact on the creek and promote a sense of stewardship among residents.

Grant #: 3003-VRSCCP2009-7

Grantee: Wexford Conservation District

Title: Clam River Cleanup Project

Watershed(s): Clam River

Funding Amount: \$775

Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

To clean trash and other debris along one mile of the Clam River in Haring Township (Wexford County), thereby improving water quality.

Grant #: 3003-VRSCCP2009-8

Grantee: Charter Township of Clinton

Title: Clinton River Cleanup at Budd, Canal, Woodrow W. Wood & George George Parks

Watershed(s): Clinton River

Funding Amount: \$1,200

Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

To remove trash and debris from approximately 12,000 ft. of the bank of the Main Branch of the Clinton River.

Grant #: 3003-VRSCCP2009-9

Grantee: South Branch Township

Title: AuSable River Fall Cleanup

Watershed(s): AuSable River

Funding Amount: \$2,324

Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

To remove trash from approximately 75 miles of the mainstream, south branch and north branch of the AuSable River.

Grant #: 3003-VRSCCP2009-11

Grantee: City of Allegan

Title: Downtown Allegan Kalamazoo River Clean Up

Watershed(s): Kalamazoo River

Funding Amount: \$1,475

Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

To remove accumulated trash and debris from a visible one-mile section of the Kalamazoo River and a smaller tributary creek within the Allegan City limits.

Grant #: 3003-VRSCCP2009-12

Grantee: City of Charlotte

Title: Charlotte's 5th Annual River Cleanup

Watershed(s): Butternut Creek and Battle Creek River

Funding Amount: \$682

Final Report: Not yet submitted by grantee

Appendix D, continued.

To clean up and improve approximately one mile of each waterway within the City of Charlotte to increase recreational opportunities.

Grant #: 3003-VRSCCP2009-13
Grantee: Saginaw Conservation District
Title: Cass River Clean-Up Project
Watershed(s): Cass River
Funding Amount: \$2,064
Final Report: Not yet submitted by grantee

To clean a three-to-five mile stretch of the Cass River, removing tires, steel, bottles and cans, discarded paper and plastic items.

Grant #: 3003-VRSCCP2009-14
Grantee: City of Eaton Rapids
Title: Eaton Rapids Gives the Grand a Hand River Clean Up
Watershed(s): Grand River
Funding Amount: \$950
Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

To remove human made objects from the Grand River, foster a sense of responsibility toward the environment, and develop a revived sense of community pride.

Grant #: 3003-VRSCCP2009-15
Grantee: City of Battle Creek
Title: Global Citizens River Conservation Day
Watershed(s): Kalamazoo River
Funding Amount: \$1,000
Final Report: Not yet submitted by grantee

To promote the protection of the water resources within the Kalamazoo River watershed through the removal of trash and tires.

Grant #: 3003-VRSCCP2009-17
Grantee: Waterford Township
Title: Clinton River Clean Up
Watershed(s): Clinton River
Funding Amount: \$1,190
Final Report: Not yet submitted by grantee

To clean approximately 4.75 miles of the Clinton River, including six identified "hot spots" along the river where dumping and trash collection is prevalent.

Grant #: 3003-VRSCCP2009-18
Grantee: City of Grand Rapids Environmental Services Department
Title: Mayor's Annual Grand River Clean Up
Watershed(s): Grand River
Funding Amount: \$3,600
Final Report: Not yet submitted by grantee

Appendix D, continued.

To remove waste from the Grand River, promote water quality and increase the region's aesthetic appeal making it a safer and cleaner place for residents and visitors.

Grant #: 3003-VRSCCP2009-20

Grantee: Grand Traverse Conservation District

Title: 5th Annual Boardman River Clean Sweep

Watershed(s): Boardman River

Funding Amount: \$1,105

Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

To conduct the fifth annual community-wide cleanup of roughly 25 miles of the Boardman River in conjunction with the National River Cleanup Week and the National Cherry Festival.

Grant #: 3003-VRSCCP2009-21

Grantee: Shiawassee County Health Department, Environmental Health Division

Title: 12th Annual Shiawassee River Cleanup

Watershed(s): Shiawassee River

Funding Amount: \$1,800

Final Report: Available upon request; will be submitted to DEQ at end of 2009 grant cycle

To remove trash and debris from the Shiawassee River along eight miles of stream - including trash, tires and scrap metal - to create a cleaner, safer river for the county's residents.

Grant #: 3003-VRSCCP2009-22 **(Project Withdrawn)**

Grantee: City of Monroe

Title: River Raisin Clean-Up in City of Monroe

Watershed(s): River Raisin

Funding Amount: Grantee unable to complete project due to high waters (award was \$1,150)

Final Report: No report

To conduct two River Raisin clean-ups in the City of Monroe along approximately one mile of the river.