Dedicated to the preservation, protection, restoration, and sustainable use of the Muskegon River...

Annual Report
2014

Muskegon River Watershed Assembly
The Muskegon River Watershed Assembly received grant awards and project support from the following organizations in 2014:

- Community Foundation for Muskegon County (CFFMC)
- Cranbrook Institute
- Dogwood Foundation
- Ferris State University (FSU)
- Fremont Area Community Foundation (FACF)
- Frey Foundation
- Houghton Lake Improvement Board
- Mecosta County Community Foundation (MCCF)
- Meijer Foundation
- Michigan Dept. of Environmental Quality (DEQ)
- Michigan Dept. of Natural Resources (DNR)
- Osceola County Community Foundation (OCCF)
- U.S. Environmental Protection Agency (EPA)
- U.S. Forest Service (USFS)
- Wege Foundation

**MRWA Mission and Goals**

The Muskegon River Watershed Assembly is dedicated to the preservation, protection, restoration, and sustainable use of the Muskegon River, the land it drains, and the life it supports, through educational, scientific and conservation initiatives.

**MRWA goals:**

- Disseminate information about the Muskegon River Watershed
- Provide a forum for the discussion of watershed issues
- Initiate actions which will provide for the sustainability of a healthy Muskegon River
- Compile and correlate data and sources of data
- Actively promote collaboration and coordination to achieve MRWA objectives
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The Muskegon River Watershed Assembly (MRWA) was formed by volunteers in May 1998 to address the needs of the River and to assure that future generations are able to enjoy the River as much as we do now. In 2000, the MRWA was incorporated as a nonprofit organization and granted an exemption from income tax under Section 501 (c)(3) of the Internal Revenue Code.

With the assistance from a three-year grant from the Wege Foundation and Great Lakes Fishery Trust (GLFT) in 2001, the volunteers hired two full-time employees. In 2012, the MRWA was awarded a Great Lakes Restoration Initiative grant providing a portion of the funding for a third full-time employee.

The Wege Foundation has been instrumental in supporting the MRWA with operational funds and project match funds. The Fremont Area Community Foundation has awarded grants to the MRWA for projects and activities directly benefiting Newaygo County from 2006 through 2015.

Ferris State University (FSU) has provided three offices for our employees at their main campus in Big Rapids, MI since 2001. FSU also provides computers and technology support.

Gratitude is also expressed to the many individual and organizational contributors who support the MRWA with membership fees and donations (pages 6-7).

In 2014, the MRWA worked on numerous projects and implemented programs that affected all the major counties within the Watershed as we worked to fulfill our mission. A few of the projects are contained in this report under the categories: preservation (page 8), protection (pages 9-10), restoration (page 11) and sustainability (page 5), through educational, scientific and conservation initiatives (pages 12-13).

The Muskegon River is the second longest river in Michigan and has one of the largest watersheds encompassing over 2,700 square miles. The River and its tributaries flow through major portions of nine counties and touch upon three others. The River is a unique “cool-water system” with both cold and warm water tributaries.
After 13 years of service to the MRWA, Gary Noble retired as MRWA Executive Director in 2014. The MRWA Board of Directors chose to promote Terry Stilson as his replacement. Dixie Ward was also hired as the MRWA Project Manager in early 2014.
The Muskegon River Watershed Assembly (MRWA) mourns the loss of one of its greatest supporters, Peter Wege, who died on Monday, July 7, 2014.

MRWA Chair Greg Mund, states, "Peter has been a true friend and champion for the Muskegon River, watershed residents and all who enjoy this unique resource. His generosity and commitment to preserve our natural resources is appreciated beyond words...the Muskegon River Watershed Assembly lost a gentle, great man who will be missed!"

The MRWA was founded in 1998 by volunteers but the Wege Foundation was instrumental in providing the necessary funding for the organization to sustain itself and accomplish its mission. The Foundation also generated millions of dollars toward research to increase the understanding of the impact of social, ecological, and economic systems on the Muskegon River Watershed.

Peter’s concern and support for the environment has truly been an inspiration to us all. He will be greatly missed.

In 2014, the MRWA received a total of $685,262 in revenues, gains and other support as illustrated in the graph left.

The audited “Comparative Statement of Functional Expenses—Year Ended December 31, 2014” is illustrated in the graph right, giving the percentage of expenses used for general management tasks, fundraising and program services. Total expenses for 2014 were $678,000.
MRWA Members

Membership (July 1, 2013 - June 30, 2014)
City of Cadillac
Fremont Lions Club
Higgins Lake Property Owners
Houghton Lake Lake Assoc.
Montcalm Cons. Dist.
Muskegon Conservation District
Osceola-Lake Conservation
Ron Alexander, Bridgeton Yacht Club
Kurt, Kim & Marbeth Anderson
Tom Anderson
Kris Andrus
Bruce Baker
Ray & Linda Banbury
Jim & Alice Bandstra
Donald & Pat Bauman
Marty Baumgartner
Maureen Beekman
Curtis Behnke
Yo Bellingar
Thomas Berdinski, MDEQ
Todd Blake, City of Fremont
Tom Blandford
Edward & Mary Brayton
Sandra Brogan, Morton Twp Tri Lakes
Lee Brown
Dale & Rose Burleson
Bill & Nancy Burmeister
Randy Butters & Sarah Pregitzer
Gary & Betty Byl
John Calabrese, Village of Hersey
Roger Carey, McNALMS
Edwin Carter
Fred Chidiester
John Clelland
Lillie Coster
Mary Daloisio
Bill & Dea Danly
Don Dean, Canadian Lakes Fishing Club
Eckhart Hart
Greg DeWeerd, Musk. Save Our Shoreline
Jerry & Margaret Dougan, Sheridan Twp.
Susan Hoekenga & Ed Gergosian
John & Lois Elder
Peter Farougi
Solomon Feravich
Jackie Fitzgerald, Mecosta Co.
Chris Fortier, Ravenna Conservation Club
Karl & Sue Frederiksen
Loretta Fritz
C. Mitchell George
Kurt Giberson, Brooks Twp.
Pamela Gilbert
Bob & Nia Godbold
Bre Grabill, PLM Lake & Land Mgt
Shirley Green
David Gregory
Bea Griffith-Cooper, Learnsmith Assoc.
Wayne Groesbeck
Toni Rae Gurn
Michael Guy
Mark & Patti Guzniczak
Frederick & Cindy Heck, FSU
James & Pamela Hegarty
Don & Karen Henning
Thomas Hogenson, Spectrum Health BR
Larry & Gina Howald
Walter Howard
Dale Hower
Rolf Hudson, Lake George POA
Kenneth Hultka, Muskegon Co. Rd Com
James & Linda Jackson
Stephen Jackson, Jackson-Merkey Contract
Carmen Janson
Jim & Karen Janson
Tom Jennett
James Johnson, Crawford-Roscommon CD
Ken Johnson, Richard Johnson Builder
Peter MacDonald & Julie Boss
Ronald & Robin Kadelisk
William & Linda Kail
Glenn Kebler
Robert Kersman
Randy & Debbie Knapp
Mark & Jeanette Knoph, Old Log Resort
Bob & Beth Krueger
Ted Kusowski
Jean LaLonde
Emert Lange
Pat Lemson
Joe & Paula Leto
Jason DaDay & Lori Anderson
Charmaine Lucas, Mecosta CD
Sara Ludviksen
Marlies Manning, Manning Design
William Marsh
Lori Meizo & Martin Hoernel
Jim Maturen, MI Wild Turkey Hunters
John & Ginni Mazur
John G. McCoy
Sue Ellen & Bob McCreary
Norbert McFarland
Brooklyn Medendorp
Bob & Mary Michela, HLLA
Brenda Moore, Muskegon Co.
Karen & Kamal Motawi
Greg Mun
Don & Dea Nelson
Rick Nelson
Robert Nicholson
Mike & Sandy Niemiec
Gary Noble
John & Cheryl Orlikowski
Amy Packard
Robert & Nancy Parsons
Mary Payne
Roger Peacock, Fairview Floral/Garden
Steven Petoskey
Scott Plummer
Dan Postema
Theresa Potter
Charles & Sheryl Presler
Jon & Sandy Price
Todd Price
John & Ailene Pugno
Allan & Deb Puplis
Mary Pylman
Diane Randall, Roscommon Twp.
Kurt Ray
Michael Reagan, Bridgeton Twp.
Jeff Ream, Muskegon Township
Tom Reichard, Dist. Health Dept. #10
Kevin Rodibaugh
Mike Rolfe
Margaret Ross
Clayton Rye
James Rynberg, City of Fremont
Richard & Ruth Santer
Lynne Scheible, FireStarter Leadership Ctr
Claude Schmitt
AI & Sue Schneider
Bob Schneider, Roscommon Co - Dist. 3
Jon Schneider, City of Newaygo
Lee Schrader
Ed & Pat Schroeder
DuWayne & Jean Schuler
Craig & Cathy Simons
James Smalligan, FTC
Fred Smith
John & Kathleen Snider
Don Snyder, Kalamazoo Chapt.T.U.
Stephen Sobers, City of Big Rapids
Robert Soltess
Leo & Nancy Speese
Marilyn Speese
Don Stephen
John & Terry Stilson
Cari & Peggy Straathof
Marcus Sutter
Jim & Jean Sweet
Larry & Mary Swisher
Gary & Gloria Switzer
Vivian TenBrink
Melora Theunick, LDFA
Doug Trembath
Dale Twigg, Newaygo Co.
Gary Unger
Donald & Joann VanderMolen
Theresa VanVeelen, Musc Com College
Dixie Ward
Gail Warnement, Newaygo CD
Stanley Watkins, Lake James LA
Tim Weiden Jr.
Ron Welton
Dick Wheeler, Morton Twp.
Fred Wilder, Muskegon Conservation Club
Harold & Marcia Wilhelm
Robert & Mary Wygant
Dennis Zimmerman, Lincoln Twp
Dennis Zimmerman, MLSA/Lake George POA

Lifetime Members:
Karleen Cox
Tom & Susan Fabus
Michael & Dianne Gabrion
Mark King
Catherine Obits, Gerber Found.
We depend on contributions to keep our organization running. Thanks so much!

Keep it Cool Donations
Consumers Energy Foundation
Dogwood Foundation
Bob and Norine Foster Haworth Inc.
Steven Houghton
Ryan Miller
Gary Noble
Wynne Noble Potter
Barbara Ruga

Muskegon River Conservationist
Edward Gergosian and Susan Hoekenga

Muskegon River Preservation Partner
Michael and Diane Gabrion

Muskegon River Protector
John and Terry Stilson

Muskegon River Sponsor
Doug Bard
Keith and Karen Bumgarner
J.A. Conrad
Greg DeWeerd
Tom Fabus, Hersey Twp. Fremont Lions Club

Muskegon River Contributor
Donald and Pat Bauman
Tom Blandford
Edward and Mary Brayton
Bill and Nancy Burmeister
Bill and Dea Danly
Evart Area Historical Society
Vicki and Neil Frye
C. Mitchell George
Peggy Jensen/Gerald Nehra
Wayne Groesbeck
John Hern
Tom Jennett
Peter and Janet Jordan
Ronald and Robin Kadelsik
Glenn Kebler
Joellyn Kieren
Emert Lange
Norbert McFarland
Rick and Anne Meeks
Karen and Kamal Motawi
John and Cheryl Orlikowski
Robert and Nancy Parsons
Dick Pastula
Matthew and Bonnie Pinter
Allan and Deb Pupilis
Richard and Ruth Santer
Leo and Nancy Speese
Marilyn Speese
Al and Annosjkja Steinman
Jim and Jean Sweet
Doug Trembath
Donald & Joann VanderMolen
Dixie Ward
Richard Wright

Other
Ron Alexander
Richard Arnold
Julie and Jeff Berwald
Gary and Betty Byl

Delores Clark
Jean and Jim DeStefano
Bruce I. Dutcher
Wayne Falda
Solomon Feravich
Chris Fortier
Rod Geers and Kathy Misak
Robert Gillespie
Bob and Nia Godbold
Shirley Green
Ned Hughes
Lorraine James
Ken Johnson
William and Linda Kail
Mark and Jeanette Knoph
Alex Monroe
Patrick and Barbara Moran
Steven Petoskey
Jason and Melissa Poll
Dan Postema
Mary Pylman
Kurt Ray
Margaret Ross
 Lynne Scheible, FireStarter Leadership
Al and Sue Schneider
Lee Schrader
DuWayne and Jean Schuler
Jonathan/Renee Steinacker
Craig and Sharon Taylor
Vivian TenBrink
John Walhout

In 2001, an endowment fund was created by the MRWA at the Community Foundation for Muskegon County. Contributions to this fund are held in perpetuity with only earnings available for the MRWA to use. As of December 31, 2014, the MRWA has used none of the earnings from this account.

2014 Contributors: Larry and Mary Swisher
In 2011, the MRWA received funding from the DEQ and Wege Foundation for the multi-faceted three-year Upper Watershed project (Roscommon and Missaukee Counties).

In 2014, GVSU Aniss Water Resources Institute (AWRI) completed an upper watershed management plan and submitted it to the DEQ. AWRI and MRWA also completed township visits to discuss local ordinances that would protect natural resources.

The Central Michigan District Health Department (CMDHD) collected water samples in Houghton Lake and had DNA testing completed to determine the source of the *E. coli* readings at some sites. Results:

<table>
<thead>
<tr>
<th>Location</th>
<th>Source(s)</th>
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<tbody>
<tr>
<td>Roscommon Hts</td>
<td>Human</td>
</tr>
<tr>
<td>Roscommon Hts</td>
<td>Duck/Geese</td>
</tr>
<tr>
<td>Knappen Ck</td>
<td>Deer Run</td>
</tr>
<tr>
<td>Lakeview</td>
<td>Roscommon Hts</td>
</tr>
<tr>
<td>Lee’s Resort</td>
<td>Roscommon Hts</td>
</tr>
<tr>
<td>Lee’s Resort</td>
<td>Duck/Geese</td>
</tr>
<tr>
<td>Lee’s Resort</td>
<td>Deer Run</td>
</tr>
<tr>
<td>Lee’s Resort</td>
<td>Roscommon Hts</td>
</tr>
<tr>
<td>E. Houghton Lake Drive</td>
<td>Roscommon Hts</td>
</tr>
</tbody>
</table>

The Roscommon County Road Commission (RCRC) completed road end best management practices on Devonshire Road. Denton Township and the RCRC also provided matching funds for this part of the project.

The upper watershed project was granted an extension through August 31, 2015.

The MRWA received funding to complete road/stream crossing inventories to obtain data on the effects the crossings have on fisheries habitat. Data gathered in the field is uploaded to the state database at [http://www.mcgi.state.mi.us/miculverts/](http://www.mcgi.state.mi.us/miculverts/). This information will also be used to draft future grant proposals to improve these crossings.

Muskegon County and Newaygo County inventories have been completed. Montcalm and Mecosta Counties will be completed in the near future.

Funding for the project thus far has been provided by the Michigan DNR, FACF, and the Wege Foundation.
Since the MRWA received one of the first Michigan Clean Water Corps grants in 2005, 86 volunteers have been trained to complete habitat assessments and collect macroinvertebrates to determine water quality in our Watershed’s streams.

In 2014, a “Meeting of the Monitors” was held in Big Rapids to help unify our water monitors and provide them with information. Volunteer monitor Stephen Ross provided a presentation on vernal ponds (pictured right).

Volunteers collect macroinvertebrates each spring and fall and send datasheets to the MRWA who inputs them into a database. The data is then sent to the state MiCorps program who in turn provides the data to the DEQ.

After the initial two-year grant was completed, the MRWA Board allocated funding to continue the program.

Trash in our waterways is not only unsightly but it has harmful consequences. Liquid in containers, leaching plastic, chemicals, medicines, and other contaminants pollute our water, plus animals can become trapped in trash and die.

In 2014, many independent groups cleaned sections of our watershed. One MRWA sponsored group, Cindy Fitzwilliams-Heck’s FSU Nature Study Class (pictured above), cleaned a section of the Muskegon River in Big Rapids called Ferris Flats. Students not only collected trash but recorded each piece they picked up. They collected 100 pounds of trash.

The MRWA also has mesh cleanup bags that have been provided to organizations who have cleanup events and canoe liveries.
Aquatic Invasive Species (AIS) are spreading throughout the Great Lakes. Many of these species have populated our lakes via boat traffic.

2014 was the second year of using a power washer to educate boat owners in Roscommon County. Boat owners are offered a free boat wash and our coordinators and volunteers conduct a short survey with the boat owners. 2014 coordinators included Logan Nevins and Mike Fisher.

We also used the power washer to conduct a couple boat washing events in Newaygo County. Randy Butters and Sarah Pregitzer coordinated these events.

In all, 208 boats were washed with 222 surveys conducted.

Funding for the project was from the US Forest Service, Roscommon County Community Foundation and Houghton Lake Improvement Board.

**Knowledge of AIS**

![Knowledge of AIS](image)

Figure 1: From the 222 surveys that were conducted during the wash season 76% of those surveyed were aware of what AIS was, with only 5% of respondents indicated they did not know anything about AIS.

**Prevention Methods**

![Prevention Methods](image)

Figure 5: This figure illustrates the number of respondents that were aware of other AIS prevention methods other than washing a boat.

**More Native Vegetation**

![More Native Vegetation](image)

Figure 8: The number of boaters that would like to see more native vegetation vs no more native vegetation.
Trees are important to a watershed. They produce shade to keep our waterways cool, and can absorb and filter a great amount of storm water runoff. Michigan lost much of its forests during the logging era.

Partnering with the West Michigan Great Lakes Stewardship Initiative, North Muskegon high school students plant trees along the Muskegon Lake Bike Path (left). Funding for this project was provided by the Community Foundation for Muskegon County.

Other tree planting projects were conducted through our Great Lakes Restoration Initiative grant (see below).

Restoration of Riparian Areas in the Muskegon River Watershed

Funding from the EPA: $798,000
Partners: Muskegon Conservation District, Grand Valley State University – Anis Water Resources Institute, Land Conservancy of West Michigan, Huron Pines and Conservation Resource Alliance
Project Tasks: Reforestation, Streambank Stabilization, Forest Stewardship Plans, Erosion Control sites and Conservation Easements

In 2014, the MRWA and project partners made progress towards the goals of the project. Inventory reports were completed for the upper watershed including: large woody debris, 132 road stream crossing sites, 7 streambank erosion sites, 14 invasive species sites, 5 small dam sites and 78 instream habitat sites. Reforestation was completed on 298.5 acres and 4 Forest Stewardship Plans were completed on high priority riparian lands in the lower watershed.

Funding for the project is from the EPA and Wege Foundation.

Hersey Habitat

Woody instream fish habitat structures along a 2,058 foot stretch of the Hersey River (Osceola County) was completed in late 2014. The stretch included Village of Hersey property and private lands below the former Hersey Dam.

Funding was provided through the Michigan DNR and Frey Foundation.
Education Initiatives

The MRWA Education Committee continued providing Natural Shoreline workshops to watershed residents in 2014 conducting a session for Pickerel and Kimball Lakes in Newaygo County. The workshops provide education about the importance of natural shorelines and native plants, and assist landowners in developing their own property site plan (pictured left). Facilitators included Committee members Cynthia Fitzwilliams-Heck, Nancy Burmeister, Vicki Sawicki, and Program Director Terry Stilson. This workshop was funded through the FACF.

The Education Committee also provided two rain barrel workshops for Mecosta County residents. Participants learned how important it is to keep water on their property. These workshops were partially funded through Mecosta County Community Foundation Match Day funds.

Water Fairs

The MRWA conducts water fairs to provide water-based education to elementary school students. MRWA staff participated and conducted two fairs, and participated in two other water fairs during 2014.

A unique water fair was organized by the MRWA for Tri County (Montcalm County) fourth grade and high school students. Program Director Terry Stilson and Project Manager Dixie Ward organized the event and taught the high school students water oriented sessions which they taught to over 200 fourth grade students. Funding was provided from the Meijer Foundation.

The Twin Lake (Muskegon County) Water Fair was held in May for Twin Lake Elementary third grade students at Twin Lake Park. Terry Stilson coordinated the event with Dixie Ward, Christa Smalligan (Camp Newaygo), Julie Batty (Muskegon Conservation District), Vicki Sawicki (USFS) and volunteer Kathy Morrison facilitating the sessions. Funding was provided from the Community Foundation for Muskegon County.

Stilson and Ward also facilitated water cycle sessions at Camp Newaygo’s environmental G-3 event for Newaygo County third grade students. Stilson, Ward, and board member Wayne Groesbeck conducted wildlife sessions at the Muskegon County Water Festival in September.
The 2014 Voyage of Discovery was completed on the Hersey River in Osceola County and the Muskegon River in Osceola and Mecosta Counties. This is the fourth year the Voyage of Discovery Committee has planned a trip in the watershed. In 2011, the initial trip was the entire Muskegon River. Since that year, the group has chosen tributaries to paddle and explore.

“The scenery was great,” said Craig Simons, a participant on the trip. “It was challenging at points, but I really enjoyed it.”

Along with the recreational aspect of the trip, the group also collects data for the MRWA to gain insight about of the vast watershed.

In 2012, the MRWA was awarded grants from the Michigan DNR Fisheries Division and Higgins Lake Foundation for the Higgins Lake Evaluation Project (Roscommon County). Researchers from Michigan State University (MSU) and University of Michigan (UofM) are reviewing hydrogeological, environmental, and engineering data, conducting bathymetric and lake floodplain surveys, conducting longitudinal channel and floodplain surveys in the Cut River, installing monitoring stations along the Cut River, preparing groundwater/surface water hydrologic models, and preparing habitat models to examine fishery-related impacts. In 2013, Huron Pines conducted a stakeholder survey focusing on identifying concerns about the lake.

Research was completed in 2014. Reports will be completed in 2015 and will be distributed to the public upon DNR approval.

Photo left courtesy of Tom Reznich, Houghton Lake Resorter