



# Michigan Chapter North American Lake Management Society

Spring 2018

P.O. Box 4812  
East Lansing MI 48826  
[www.mcnalms.org](http://www.mcnalms.org)

## Presidential Ponderings...

By Mike Solomon, McNALMS President



First I want to express my appreciation for the opportunity to serve as President of McNALMS. It is an honor and responsibility. The Board has already initiated an active calendar for 2018. On March 8, 2018 we had another Lunch and Learn on MSU's campus. The theme was "Managing Fish Habitat in a Changing Climate" and was attended by a little over 40. I want to recognize Dr. Joe Nohner for his efforts of finding speakers and coordinating this event.

In April, MLSA held their annual conference at Crystal Mountain Resort. More than half of the McNALMS Board was able to attend and many of our members. It was a great opportunity to learn about new inland lake management techniques and to network with fellow professionals and riparians

Check your calendars and consider reserving October 3-5 for the next Inland Lakes Partnership conference. It will be held in Grand Rapids and McNALMS will be co-sponsoring it. McNALMS will also be committing to Chair on of the sessions. Erick Elgin, Dr. Lois Wolfson, and Dr. Beth Clawson have volunteered to coordinate that effort.

The Board has jointly funded with MLSA a student grant. The winner is Paige Kleindl and her research is on Littoral Zone Restoration and Nutrient Enrichment Source Impacts on Macrophyte and Epiphytic Algal Communities. This grant was awarded at \$2,000.

The McNalms website has a new look thanks to Dr. Lois Wolfson. Check it out and see what is happening McNALMS also has a Twitter and Facebook presence thanks to Erick Elgin and Dr. Syndell Parks respectively.

## Highlights from the McNALMS Spring Lunch & Learn

### Fisheries biologists share insight for managing fish habitat in a changing climate

How is climate changing inland lakes right now?

How will climate change affect the inland lakes that we hope our grandchildren will enjoy?

What can we do now to mitigate these effects?

Pete Jacobson, Minnesota Department of Natural Resources (DNR), and Kevin Wehrly, Michigan DNR, discussed this and more at the recent "Managing Fish Habitat in a Changing Climate" Lunch and Learn event on March 8<sup>th</sup>. Wehrly explained that the climate in Michigan is expected to be more like that in Missouri by 2100, which will result in longer stratification in lakes, reduced dissolved oxygen, reduced ice cover, and numerous effects to the biota. Computer models estimating climate change effects in Michigan's inland lakes show dramatic expected losses in the number of lakes supporting Walleye, Smallmouth Bass, and other fishes.



Jacobson provided a framework for building resilience to climate change impacts and discussed how the strategy is being applied in Minnesota. The Minnesota approach highlights that both eutrophication and climate change interact to limit the amount of colder water that has sufficient oxygen for fishes like Cisco, Northern Pike, and Walleye. As a state level management agency, Minnesota DNR recognized that it would have little effect on the global causes of climate change, but that it could minimize the threat's impacts to the state's fisheries through addressing watershed-scale causes of eutrophication. Healthy, forested watersheds act as a sponge, absorbing nutrients and sediments as opposed to allowing them to flow over land, into streams, and ultimately into lakes. By "protecting the sponge", Minnesota DNR aims to reduce nutrient inputs to lakes. With fewer nutrients, mid-summer declines in oxygen in the bottom (hypolimnion) and middle (metalimnion) waters of the lake are less severe, and allow fishes that need the cooler water in these regions to persist. Minnesota DNR identified 44 Cisco refuge lakes based on a comprehensive prioritization effort, and is working with land conservancies and other non-profit organizations to restore and protect these watersheds. This approach has been hailed as one of the most innovative and scientifically grounded techniques for minimizing the effects of climate change to inland lake ecosystems.



## McNALMS and MLSA Award Student Grant for 2018

This year's recipient of McNALMS and MLSA's Lake Research Student Grant is Paige Kleindl. Paige is a graduate student in the Department of Biology at Grand Valley State University working on her MS degree under advisor Dr. Alan Steinman. Paige's proposal and research is on Littoral Zone Restoration and Nutrient Enrichment Source Impacts on Macrophyte and Epiphytic Algal Communities. Specifically, she will focus macrophyte and epiphytic algae communities within Muskegon Lake at two restored habitats and one unimpacted reference location. Her goals are to 1) determine the impact of shoreline softening on macrophyte community establishment; and 2) evaluate the community structure of epiphytic algae between the restored and reference habitats by conducting a macrophyte-epiphyte survey. Additionally, to further understand macrophyte and epiphytic algae interaction and response to environmental changes, she will conduct a controlled experiment within laboratory mesocosm tanks to examine the impact of phosphorus (P) and nitrogen (N) nutrient enrichment within the sediment versus the water column using the aquatic plant *Vallisneria americana* and its attached algae.



The Lake Research Student Grants Program, sponsored by McNALMS and the Michigan Lake and Stream Associations, Inc., (MLSA) promotes University student efforts to work on inland lakes and/or with lake communities to enhance inland lake management. Projects that increase the understanding of lake ecology, have applicability to Michigan lakes, strengthen collaborative lake management, build lake partnerships and/or expand citizen involvement in lake management were eligible for consideration.

Congratulations to Paige on receiving this grant.



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**MWA Mission Statement** "This corporation is formed to protect, preserve and promote the wise use of inland waters – lakes, streams, rivers, creeks and the waters and bottomlands of the State of Michigan.

**Michigan Waterfront Alliance**  
**Membership Application**

Please help us in our efforts to be a legislative "Watchdog" to protect Michigan's Inland Lakes & Streams.

Annual dues:  
Individual membership \$50 - Lake Associations \$100  
Corporations \$200

Please print:

Name \_\_\_\_\_

Date \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Zip \_\_\_\_\_ County \_\_\_\_\_

Phone \_\_\_\_\_

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Make checks payable to: Michigan Waterfront Alliance  
Send dues and contributions to: Michigan Waterfront Alliance  
PO Box 369 Fenton, MI 48430

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## McNALMS Board Members 2018

**President: Mike Solomon**

(Wexford Co Drain Commissioner/Restorative Lake Sciences)

**President Elect: Beth Clawson**

(Michigan State University)

**Secretary: Roger Carey**

(Retired Riparian)

**Treasurer: Jason Broekstra**

(PLM Lake & Land Management Corp.)

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**Past President: Lois Wolfson**

(Michigan State University)

### Directors at Large

**Ralph Bednarz** (Retired Riparian)

**Erick Elgin** (Michigan State University)

**Joe Nohner** (Michigan DNR)

**Syndell Parks** (GenPass LLC/GVSU)

## Put your \$\$\$\$ Where Your Mouth Is!

In our Fall 2017 McNALMS newsletter we expanded our membership form to allow our members (YOU) to provide donations in five different categories. Research Grant; Travel Grant, Scholarship, Sponsor Project and a Student Appointment Fund. In addition to your donation, McNALMS is providing a 50% match up to \$100.00. At this time we have received donations totaling \$150.00 for the Travel Grant, with McNALMS match we have \$225.00. Our goal is to provide student presenters with \$250.00 each for the upcoming Inland Lakes Convention. Thank you for your support to date, however we need you to speak a little louder...\$\$\$\$!

We have also received support for a Student Appointment Fund. This fund would be a 1-year appointment for a student to be directed by McNALMS Board of Directors to assist in operations, programs and outreach initiatives. Our goal is \$500 but that is yet to be met.

An additional donation has been made toward our McNALMS/MLSA Research Grant. Thank you!

If you have questions regarding McNALMS donations options please let us know.



## ESSENTIAL RESOURCES FOR LOCAL OFFICIALS

State, local elected and appointed officials and staff wanting to gain access to resources and knowledge about water management are encouraged to attend this workshop!



**May 22-23, 2018**

8:30 am to 5 pm

Western Michigan University

Innovation Event Center

4717 Campus Rd.

Kalamazoo, MI

Registration: \$175 (Space is limited)

Certificate upon completion

Master Citizen Planner credits available

### INVESTIGATE:

- Factors that impact Michigan water
- The Blue Economy
- Fiscal benefits of water management
- Incorporating water into local planning and placemaking
- Risk assessment approaches
- Resources to help address water problems
- Water policy at the federal, tribal, state & local levels

**Register:** <https://events.anr.msu.edu/miwaterschool2018Kazoo>



October 4-5, 2018  
Grand Rapids  
Crowne Plaza Grand Rapids - Airport

[www.bit.ly/milc2018](http://www.bit.ly/milc2018)

## Lakefront Property Owners' Willingness to Accept Easements for Conservation of Water Quality and Habitat



Joel K. Nohner<sup>1,2</sup>, Frank Lupi<sup>1,3</sup>, and William W. Taylor<sup>1</sup>

<sup>1</sup>Fisheries and Wildlife Department, Center for Systems Integration and Sustainability, Michigan State University, East Lansing, Michigan, USA, <sup>2</sup>Now at Michigan Department of Natural Resources, Fisheries Division, Lansing, Michigan, USA, <sup>3</sup>Department of Agricultural, Food and Resource Economics, Michigan State University, East Lansing, Michigan, USA

**Abstract:** Lakes provide valuable ecosystem services such as food, drinking water, and recreation, but shoreline development can degrade riparian habitats and lake ecosystems. Easement contracts for specific property rights can encourage conservation practices for enhanced water quality, fish habitat, and wildlife habitat, yet little is known about the easement market. We surveyed inland lake shoreline property owners in Michigan to assess supply of two conservation easements (in riparian and in littoral zones) and identified property and property owner characteristics influencing potential enrollment. Respondents were significantly less likely to enroll in littoral easements if they indicated there was social pressure for manicured lawns and more likely to enroll if they had more formal education, shoreline frontage, naturally occurring riparian plants, ecological knowledge, or if the lake shoreline was more developed. Enrollment in easements in the riparian zone was significantly less likely if property owners indicated social pressure for manicured lawns, but more likely if they had more formal education, naturally occurring riparian plants, or shoreline frontage. When payments were low (<\$1,000 yr<sup>-1</sup>), marginal gains in enrollment were relatively high. Some respondents may enroll in littoral (29.8%±6.2; mean±SE) and riparian (24.4%±6.1) easements even without payment. Estimated mean willingness to accept values were \$1,365 yr<sup>-1</sup> (littoral) and \$7,298 yr<sup>-1</sup> (riparian). Targeting high-probability property owners with large shoreline frontages, more formal education, and high riparian plant coverages and conducting education to increase ecological knowledge and change social norms could increase conservation outcomes for water quality and habitat.

For additional information and to read the full article, click [HERE](#)

## Perfluorinated Chemicals (PFAS): What They are and What You Should Know About Them

There are a group of chemicals that have received a great deal of attention lately. They are referred to as synthetic perfluorinated chemicals (PFCs) or more specifically per- and polyfluoroalkyl substances (PFAS). They have been widely used in both industrial and consumer products to make those products stain and grease resistant and water-proof. Evidence suggests that exposure can lead to adverse health effects. Michigan is taking steps to address problem areas. Read more [here](#)



## On-Line Summer Courses Offered for Credit through Michigan State University (MSU)

Michigan State University's Fisheries and Wildlife (FW) Department is offering several online courses this summer that will be of broad interest. None of these courses has pre-requisites. In addition to being open to all MSU students, anyone with a high school diploma can enroll through MSU's Lifelong Education program (<https://reg.msu.edu/ROInfo/EnrReg/LifelongEducation.aspx>). Whether you're contemplating earning a degree in Fisheries and Wildlife or simply wanting to learn more about a topic you are passionate about, these courses may be of interest to you.

For further information, visit [www.canr.msu.edu/fw/online](http://www.canr.msu.edu/fw/online) or contact Jim Schneider at [schne181@msu.edu](mailto:schne181@msu.edu). Classes begin May 14