

Midwest EPA/PMRA Aquatic Plant Management Tour



July 8-12, 2019

The Aquatic Ecosystem Restoration Foundation's (AERF) Mission is committed to sustainable water resources through the science of aquatic ecosystem management in collaboration with industry, academia, government and stakeholders. The Vision of this group is to provide science-based solutions to restore and maintain sustainable water resources. In alignment of this mission and vision, AERF has conducted several EPA tours over the years. The goal of these tours is to get EPA employees and other interested regulatory agencies out to the field to see how the tools for vegetation management, which they evaluate, approve, and regulate, are used. During the week of July 8th, 2019, AERF conducted a Midwest Tour with US Environmental Protection Agency (EPA); Canadian Pest Management Regulatory Agency (PMRA); Invasive Species Centre-Ontario, CA; and Ministry of Forests, British Columbia.

The 2019 tour started with a lunch at the Kellogg Hotel and Conference Center on the beautiful Michigan State University campus in East Lansing, MI. This lunch served as a great time for



introductions and overview of the various attendees and how their backgrounds and experiences have led them to this tour. After lunch, we traveled to the MSU Veterinary Diagnostic Laboratory where Carlton Layne, Executive Director of AERF kicked off the learning session with an overview of AERF and what the upcoming tour was intended to accomplish. We then turned the podium over to Joe Bondra, Cygnet Enterprises, who helped arrange the Michigan portion of the tour. Joe welcomed and introduced our speakers for this part of the tour. During this educational

session we were able to hear a detailed explanation of how the Michigan Department of Environment, Great Lakes, and Energy (EGLE) operates their Aquatic Nuisance Control (ANC) Program. This overview included a review of the regulations around their ANC program, which includes Part 33, Aquatic Nuisance Control of the Natural Resources and Environmental Protection Act, 1994 PA 451; and Part 31, Water Resources Protection Act, of the



NREPA, 1994 PA 451. This ANC Program regulates the chemical control of aquatic plants, algae, and snails associated with swimmer's itch. During this time in the classroom, we also were able to hear the Michigan Department of Agriculture and Rural Development and the part they play in the regulatory process. This group covered



Enforcement and Aquatic Application, Certification and Registration for Aquatic herbicides and algaecides, and Licensing of Aquatic Application companies. We had a great question and answer session during this time together that allowed the EPA and PMRA to better understand the process that takes place in the State of Michigan. After the session came to a close, we



boarded our vans and headed back to the hotel for a little down time prior to dinner at the Harrison Roadhouse. As with any meal, this allowed more time to catch up and get to know the various attendees.

Day 2 was a field day. We were able to team up with several application companies from the state of Michigan and get out on the water. We had assistance from Professional Lake and Land Management, Clarke Aquatic Services, and Aquatic Services, Inc.

Although we were not able to coordinate to see an actual aquatic herbicide application during this portion of the tour, we did have a demonstration from one of the aquatic application airboats spraying water to show how the equipment functions and how an application would look.





The first lake that we visited was Lake Ovid. This is a 413 acre lake that is located within Sleepy Hollow State Park. The mean depth is around 10 feet, is unmanaged for nuisance aquatic vegetation, and has an infestation of Eurasian watermilfoil that was throughout nearly 100% of the lake during the visit. Due to the lake level being unusually high due to higher than normal spring rainfall, a good portion of the lake did not have topped out vegetation at the time of the visit. It was reported that in a normal year this vegetation would be impacting the lake even more, and the vegetation would be topped out within the next 1-2 weeks. The lake is primarily a fishing lake, but it does have a beach that is part of the state park as well.

The time on the water at Lake Ovid allowed us to see several types of plants; however, due to the presence of the invasive Eurasian watermilfoil, native plants were tough to find. This did allow our attendees to toss survey rakes and see the plants up close. There was discussion that continued after the time on the lake as to what challenges application companies encounter as well as the management



balancing act the state regulatory agencies face. This time was very valuable to understand that not all management techniques are an option for all situations.





We continued to tour with a fantastic lunch at the Blue Gill Grill located near Lake Lansing. After lunch we continued over to Park Lake which is a lake that is under management for Eurasian watermilfoil. Due to this management effort, we experienced a much more diverse native plant community which was quite different than the previous visit to Lake Ovid with unmanaged milfoil.

The reason that Eurasian watermilfoil is not desired in a lake situation is that it tends to grow much quicker than the native plant communities. This plant, if left unmanaged, will grow quickly to the surface of the water and then form a canopy thus shading out most other plants. This dense monoculture is not beneficial to the aquatic ecosystem in the lake. Research shows that when invasive species are properly managed, native plant communities will quickly recover and biodiversity will return. This is the case with most plants that are considered nuisance or invasive which is why they should never be a desired species in an ecosystem, whether it is aquatic or terrestrial.

After a long day on the water, we returned to the Kellogg Center to clean up and reconvene for a wonderful dinner at the HopCat Restaurant. This allowed time for a recap on the day's experience on the water and a bit of an overview of what was still to come.



Day 3 was a travel day in the morning as we made our way to Indiana. The tour continued late morning and through the afternoon with more classroom time at the Indiana Department of Natural Resources Northeast Regional Office in Columbia City, IN. Again, Carlton Layne highlighted AERF and provided a review of what this tour was to accomplish as well as highlighting other efforts that AERF conducts in education and research. Matthew Johnson, Aquatic Control, then took over as the moderator of the event. Matthew acted as chair of the AERF committee for the planning of this event as well as organized specifically the Indiana portion of the tour. During our time here, we got a much better understanding of the way the Indiana Office of State Chemist oversees pesticide registrations, licensing of application companies and applicators, and how pesticide enforcement efforts are conducted. The presentations continued with an overview from the Indiana Department of Natural Resources Permit Biologist on how permits are evaluated and implemented for vegetation control efforts on state waters. When applications are made to drinking water sites, Indiana Department of Environmental Management (IDEM) becomes part of the permitting process. IDEM provided the highlights on the modeling they utilize for evaluation of

when pesticides are allowed in these situations and what further conditions they put on the permits. IDEM also provided the highlights of their Harmful Algal Bloom monitoring program. Indiana



Department of Natural Resources then covered an Overview of Aquatic Plant Management program from an Invasive Plant Management aspect. The DNR also highlighted the Lake and River Enhancement (LARE) Program. The LARE program is funded from boat registration fees and goes towards the management of invasive plant management, dredging, watershed studies, watershed land treatment, feasibility and design projects, construction projects, and dam removal. The final presentation of the day was a quick highlight of the Midwest Aquatic Plant Management



Society (MAPMS). Matthew Johnson, current Vice President of the society provided this update on the past conference, Mission and Vision of the society, along with a preview of the 2020 conference which will be held in Indianapolis, IN. AERF and MAPMS work together in getting government agencies to educational efforts like the MAPMS annual meeting. The group was welcomed and invited to participate in future events.

After a long day of travel and presentations, the group was ready to enjoy a bit of time at the hotel before

heading to dinner. However, there was an opportunity that we just couldn't ignore that was recommended by the Indiana DNR. We just happened to be staying very close to the Eagle Marsh Wetland project. This was a major project that was put in place to prevent asian carp introduction into the Great Lakes. As any group of scientists would understand, we couldn't avoid the addition to the tour for a little more science before



dinner at Biaggi's in Fort Wayne, Indiana.

Day 4 was filled with field day excitement. We began by meeting up with the Indiana DNR at Backwater Lake which is connected by culvert to Webster Lake. This was another good example of a mostly unmanaged area (Backwater) vs. a managed lake (Webster). Again, as many lakes in the Midwest, these lakes' main

invasive under management is Eurasian watermilfoil. The group was not limited to plants, as we also were able to see the invasive zebra mussels on these lakes as well. Between the ramp at Backwater and our visit to Webster lake, we had the opportunity to see another unmanaged and very diverse little 20 acre lake named Goldeneye Pond. The tour continued to Webster Lake where we had the opportunity to experience the lake from the historic Dixie boat. We not only had the pleasure of learning about the management of the plants on this lake, but also quite a bit of history on the lake as well as the historical steam powered paddle boat.

After Riding the Dixie, we traveled a short distance to Wawasee Lake where we enjoyed a lunch at the Oakwood Resort on the shore of Wawasee. After wrapping up lunch, the group walked out the backdoor of the restaurant to the boat docks to hear a very informative presentation from Jim Donahoe, owner of Aquatic Weed Control. Jim provided an overview of the management of Starry Stonewort,

and then proceeded to conduct an aquatic application to a channel. The group really enjoyed this experience as many had never seen an actual aquatic pesticide application. From here we continued on a tour provided by Aquatic Control and Aquatic Weed Control





through a part of Wawasee and into Syracuse Lake. Here, the DNR provided an overview of

Starry Stonewort growth in these lakes and the group was able to see more of the plant along with seeing some of the reproductive bulbils that make this plant very unique.



We wrapped up the tour with great discussion back at the hotel and then on to a wrap up dinner at Chops Steak and Seafood. Day 5 was travel day from Fort Wayne, IN to Indianapolis Airport. The group enjoyed the trip and was full of discussion concerning future opportunities to continue to see how our aquatic systems are managed for invasive plant species.



2019 Midwest EPA/PMRA Tour

Aquatic Ecosystem Restoration Foundation (AERF)

(All Times are Eastern Standard Time)

7/7 – Arrivals - Hotel shuttle, taxi, or Uber from the airport to the hotel for check-in

7/8 – Arrivals and Classroom Michigan State

- Attendees travel morning
- Hotel shuttle, taxi, or Uber from the airport to the hotel for check-in.
- 11:30 a.m. – 12:15 p.m. Lunch – Kellogg Hotel – Corniche Room
- 12:30 p.m. – Vans Depart Hotel
- Michigan Classroom Portion being held at Michigan State University, Veterinary Diagnostic Laboratory
 - 12:50 p.m. – 1:00 p.m. – Opening Remarks – Carlton Layne, Executive Director AERF
 - 1:00 – 3:00 – Michigan EGLE; 3:00 – 5:00 – Department of Agriculture
 - Eric Bacon, Environmental Quality Analyst, Water Quality and Aquatic Nuisance Control Permits Unit; Water Resources Division; Department of Environment, Great Lakes, and Energy
 - Darrin McCullough, Aquatic Biologist, Water Quality and Aquatic Nuisance Control Permits Unit; Water Resources Division; Department of Environment, Great Lakes, and Energy
 - Sylvia Heaton – Environmental Manager, Water Quality and Aquatic Nuisance Control Permits Unit; Water Resources Division; Department of Environment, Great Lakes, and Energy
 - Enforcement and Aquatic Application, Molly Mott, Pesticide Enforcement Specialist, Michigan Department of Agriculture and Rural Development
 - Certification and Registration for Aquatics, Brian Verhougstraete, Pesticide Product Registration Specialist, Michigan Department of Agriculture and Rural Development
 - Licensing of Aquatic Firms, Tom Lawrence, Acting Pesticide Applicator Business License Specialist, Michigan Department of Agriculture and Rural Development
 - 4:30 – 5:00 p.m. – Questions for the MDARD Staff Regarding Topics
- 5:15 – Vans depart for the Kellogg Center
- 7:00 p.m. Dinner at Harrison Roadhouse

7/9 – Field tours in Southern Michigan

- 6:30 – 8:00 a.m. – Breakfast available State Room Restaurant (charge to room)
- 8:15 a.m. Vans Depart Hotel for Field Tours
 - Lake Ovid
 - 12:00 – Lunch at Blue Gill Grill
 - Park Lake
- 7:00 p.m. Dinner at Hopcat

7/10 – Travel morning, Classroom in Columbia City, IN afternoon

- 6:30 – 7:45 a.m. – Breakfast available State Room Restaurant (charge to room)
- 8:00 a.m. – Vans Depart Hotel
- Indiana Classroom Portion being held at Indiana Department of Natural Resources – Northeast Regional Office.
 - 11:00 – 11:10 a.m. – Opening Remarks – Carlton Layne, Executive Director AERF
 - 11:15 – 12:00 noon – Who is the State Chemist Office, What They Do, and Why the Heck Should I Care – Joe Becovitz, Pesticide Program Specialist, Office of Indiana State Chemist (60 min)
 - 12:05 – 1:00 p.m. – LUNCH on site – Bruno's BBQ
 - 1:00 – 1:45 p.m. – Overview of Indiana DNR Permit Process for Permitting Aquatic Vegetation Management – Debbie King, Aquatic Vegetation Permit Biologist, Indiana Department of Natural Resources; Division of Fish & Wildlife (45 min)
 - 1:50 – 2:35 p.m. – Permit Approval Process on Pesticide Applications to Drinking Water – Indiana Cyanobacteria Monitoring Program – Mitt Denney, Indiana Department of Environmental Management (IDEM) (45 Min)
 - Break – 10 min
 - 2:50 – 3:35 p.m. – Overview of Aquatic Plant Management Program – Invasive Plant Management – Eric Fischer, Aquatic Invasive Species Coordinator, Indiana Department of Natural Resources; Division of Fish & Wildlife (45 min)
 - 3:40 – 4:25 p.m. – Overview of Lake & River Enhancement Program – Rod Edgell – Aquatic Biologist, Lake & River Enhancement Program; Indiana Department of Natural Resources; Division of Fish & Wildlife (45 min)
 - 4:30 – 4:50 p.m. – Midwest Aquatic Plant Management Society (MAPMS) – Who We Are and What We Provide – Matthew Johnson, Vice President, MAPMS (20 min)
- 5:00 p.m. – Vans depart for the Hampton Inn
- 7:00 p.m. Dinner at Biaggi's

7/11 – Field tours Northern Indiana

- Hampton Inn Complimentary Breakfast (6:00 – 7:00)
- Vans Depart Hotel at 8:00 a.m.
- 9:15 – 10:30 – Backwater Lake
- 10:45 – 12:00 – Ride the Dixie – Webster Lake Tour
- Lunch – Oakwood Resort's - The Pier & Back Porch Restaurant
- 1:30 – 4:00 – Tour of Wawasee & Syracuse Lakes
- 4:30 – 5:30 – Travel back to Hotel
- 7:00 p.m. Dinner at Chops Steak & Seafood

7/12 – Travel to Indianapolis Airport (2.25 hr.) – Flights home late afternoon/evening

- Hampton Inn Complimentary Breakfast (6:00 – 7:45)
- 8:00 a.m. - Vans Depart for Indianapolis International Airport

Attendees:

Scott Couture – Pest Management Regulatory Agency
Connie Hart – Pest Management Regulatory Agency
Barbara Martinovic-Barret – Pest Management Regulatory Agency
Dan Kenney – Environmental Protection Agency
Rachel Holloman – Environmental Protection Agency
Julia Kerr – Environmental Protection Agency
LisaRenee English – Environmental Protection Agency
Matt Aubuchon – Environmental Protection Agency
Tracy Perry – Environmental Protection Agency
David Nisbet – Invasive Species Centre Ontario, CA
Crystal Chadburn – Ministry of Forests, British Columbia

Speakers:

Eric Bacon – Environmental Quality Analyst – Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Darrin McCullough – Aquatic Biologist – Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Sylvia Heaton – Environmental Manager – Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Molly Mott – Pesticide Enforcement Specialist – Michigan Department of Agriculture and Rural Development
Brian Verhoughstraete – Pesticide Product Registration Specialist – Michigan Department of Agriculture and Rural Development
Tom Lawrence – Acting Pesticide Applicator Business License Specialist - Michigan Department of Agriculture and Rural Development
Joe Becovitz – Pesticide Program Specialist – Office of Indiana State Chemist
Debbie King – Aquatic Vegetation Permit Biologist – Indiana Department of Natural Resources
Eric Fischer – Aquatic Invasive Species Coordinator – Indiana Department of Natural Resources
Rod Edgell – Aquatic Biologist – Lake and River Enhancement Program – Indiana Department of Natural Resources
Mitt Denney – Indiana Department of Environmental Management

Contributors:

Carlton Layne – AERF

Joe Bondra – Cygnet Enterprises, Inc.

Garrett McClain – Cygnet Enterprises, Inc.

Matthew Johnson – Aquatic Control, Inc.

Professional Lake and Land Management

Clarke Aquatic Services

Aquatic Management Inc.

Aquatic Weed Control

Aquatic Control, Inc.