Spring
2018

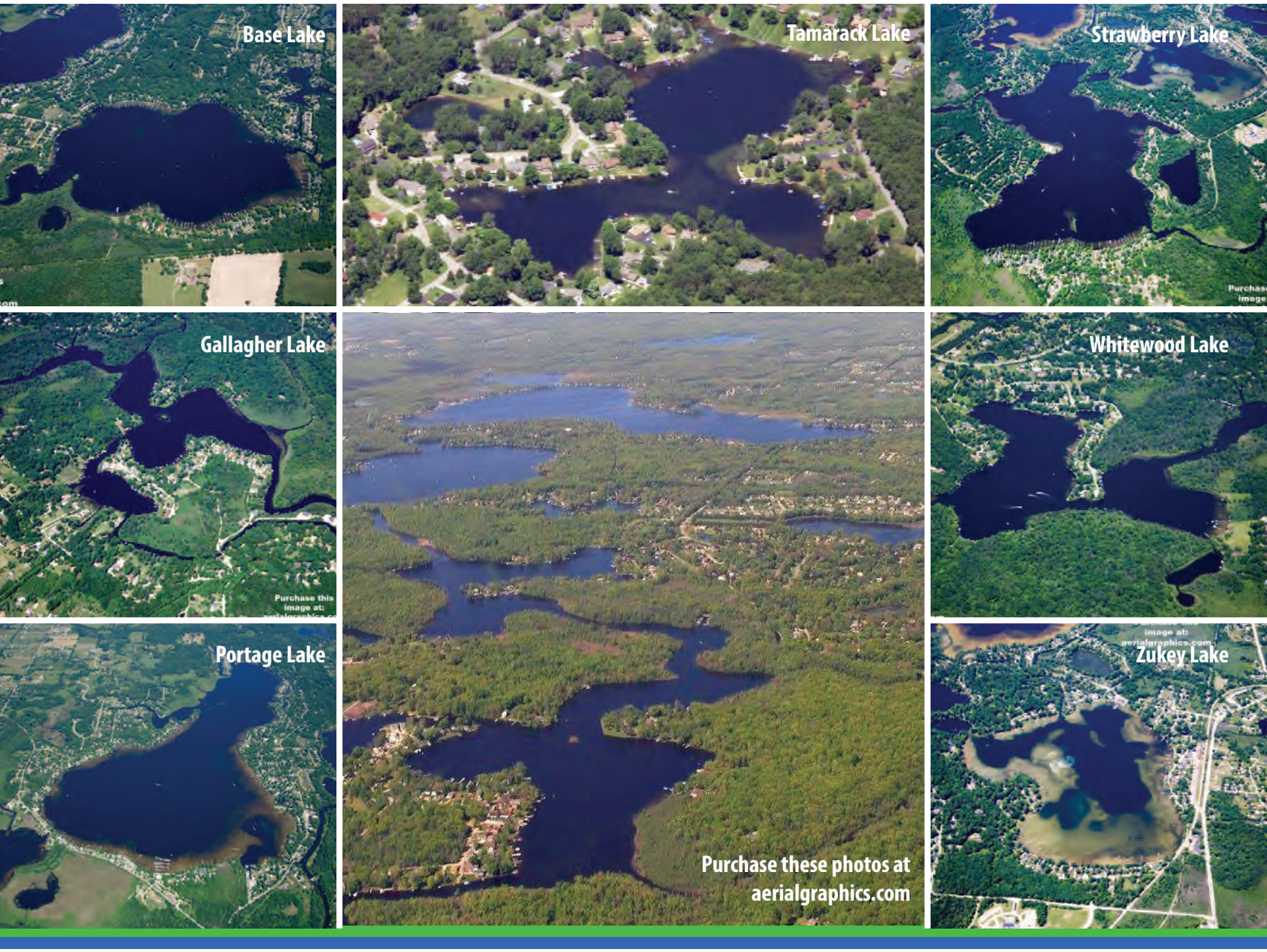
Vol. 53 No. 2

Designed and published specifically for waterfront property owners and enthusiasts

THE MICHIGAN RIPARIAN

www.mi-riparian.org

DEVOTED TO THE MANAGEMENT AND WISE USE OF MICHIGAN'S LAKES AND STREAMS Published Quarterly



The PBWOA and the CHAIN OF LAKES

PART II

THE MICHIGAN RIPARIAN
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The Michigan Riparian (ISSN 0279-2524) is published quarterly for $6.25 per issue by the Michigan Lake and Stream Associations Inc., a Michigan non-profit corporation. Periodical postage is paid at Lansing, Michigan and additional mailing offices.

Postmaster:
Send address changes to:
The Michigan Riparian
300 N. State St., Suite A, Stanton, MI 48888

The Michigan Riparian is the only magazine devoted exclusively to the protection, preservation and improvement of Michigan waters and to the rights of riparian owners to enjoy their water-front property.

The Michigan Riparian magazine is published quarterly and is mailed to subscribers in the Spring, Summer, Fall and Winter each year.

The Michigan Riparian
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Stanton, MI 48888

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SUBSCRIPTION RATES (4 issues/year)
Individual annual subscription: $25
Lake association quantity subscriptions: $12

ADVERTISING RATES
Advertising rates sent upon request or available on website.

DEADLINES: February 15 for Spring issue
May 15 for Summer issue
August 15 for Fall issue
November 15 for Winter issue

Printed by Spartan Printing, Lansing, Michigan

From The Publisher

A Sad *Goodbye*

With heavy hearts, ML&SA and *The Michigan Riparian* magazine family are sad to report that we recently lost our dear friend and President, Dick Morey. He was a passionate leader and an avid volunteer for multiple organizations, including Magician Lake where Dick and his wife maintained a lakefront home. ML&SA's Executive Director, Scott Brown, pays a special tribute to Dick Morey on page 29. Dick was an incredible asset to our organization. The success his own lake association enjoyed due to Dick's commitment and dedication to good stewardship was unmatched. For those of us who knew him well, his loss will be deeply felt for a long time to come.

This issue of *The Michigan Riparian* features Part II of a fascinating conclusion to the winter article about the PBWOA (Portage, Base, and Whitewater Owners Association Chain of Lakes). There are nine lakes in the chain. With such a huge story to tell and so much to be learned from their experiences, the story needed to be told in two parts. Enjoy!

In this issue, you will find more on the topic of Boat Wash Stations. See Mike and Kathy Gallagher's article on page 24. Another popular topic is about the Canada Goose. The over-population of Canadian geese is addressed on page 35.

ML&SA's annual conference in Crystal Mountain takes place April 20th & 21st. You won't want to miss Mike West's talk at the conference on non-chemical control of Phragmites. You will be encouraged as you learn about more options to control this pesky invasive. See page 20 for some of the highlights.

Cliff Bloom has given us interesting updates on Road End Legislation on page 38; and on page 27, read about the latest decisions and their implications from the Michigan Court of Appeals. On page 15, Cliff answers the question, "Do All Riparians Hate Public Lake Access?"

Keep sending us your pictures, questions and stories about your lake. We will be sure to include them in an upcoming issue.

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PART II

EDUCATION

By Members of the PBWOA Board

In the Winter edition of the Riparian, one of the areas mentioned was the education efforts being developed by the PBWOA. It was stated that we must be forward thinking -- providing education and educational information, involving more people and that this effort was long-term with no quick fix.

The uniqueness of the chain of lakes provides an interesting challenge because of its vast expanse and each lake has its own neighborhood community(s) and, in some cases, particular issues. Nevertheless, it is essential we address all the lakes in this chain because what happens upstream -- flows downstream.

In this article we would like to highlight a couple subjects that we feel are instrumental in moving quickly to increasing awareness of issues we are facing, getting more people involved, and providing educational opportunities for PBWOA members.

We find that many lakefront homeowners have little or no idea of what their responsibilities are, or should be, to help protect and improve our lakes. Most of them come from inland properties so they don't have any knowledge of the impact of fertilizers, leaves, pet waste, driveway sealants, water runoff, etc. This applies not only to new lakefront homeowners, but to some who have been on the lakes for years. These issues are the subject of two of our current educational efforts.

We developed and implemented a simple and effective education program for real estate agents and brokers. These real estate professionals will in turn educate their past, present and future lakefront buyers how to improve and protect the health of their lake, safeguarding their recreational interests and home values. Feedback from agents and brokers who have taken this class has been terrific.

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Education

Highlights of the Real Estate Training Program

How would you educate past, present and future buyers of waterfront property on how to improve and protect the health of their lake? By educating the very real estate professionals who sold, or will sell them the property in the first place - so they can in turn educate their clients! The PBWOA has taken on this initiative and is teaching onsite classes at broker locations to educate and energize the real estate professionals in our area on the things waterfront owners can do on a daily basis to improve and protect the health of their lakes and protect their investment. We applaud those real estate professionals who have chosen to participate and expect many more to follow suit.

Though the Portage Chain of Lakes has engaged in a Special Assessment District effort to remediate the algae and weeds in our lakes, our lakefront owner by lakefront owner educational approach is focused on the prevention of weeds and algae and to reduce the subsequent impact on our ability to recreate on these lakes.

We have agents and brokers on our Board of Directors, so we understand exactly what these busy real estate professionals need to integrate the topic of improving and protecting lake health into their real estate sales process. We also provide these agents with very simple and uncomplicated materials they can private brand and present to their clients and thoroughly explain these materials. They don't need to re-invent the wheel, and we've created these "ready to use" tools for them.

In addition to training these agents on presenting the above information to their clients, agents get a bonus informational segment on important valuable features of waterfront property and how they affect a waterfront owner's recreational interests. After all, the recreational features of waterfront property are the attraction and reason why these properties cost so much more than off lake properties; therefore, waterfront features relative to recreation should be part of the sale and certainly information needed for sellers and buyers alike.

With this new knowledge, trained waterfront real estate agents will earn credibility with their clients and in their marketplace, be critical in the protection of waterfront home values and the very market they serve and will have earned an enhanced reputation of public responsibility.

We held an initial training session at one of our brokers in Pinckney the week of 1/22/18. The agents who attended were very impressed with the information shared and thought the information was easy to understand yet very impactful. Most said the training instilled a better understanding of lake living. A broker stated she had heard from some of the agents in attendance that the class was very good and should be shared with more agents in the brokerage. A picture of the class was taken and shared with a short narrative to all the agents in the brokerage. This was sent via the brokerage communication vehicle. Quite a few agents commented that they were sorry they couldn't attend the initial class. Most of the respondents wanted to know if there was going to be another class scheduled. The broker has since scheduled a class for the agents in her other office in Brighton.

For existing homeowners (PBWOA members) our Board took a huge step and agreed to reimburse any member who successfully completed the MSU Introduction to Lakes course. In the Winter edition of the Riparian, we mentioned that three of our Board members took the course. The purpose of taking it was to educate them and, ultimately, make them more effective Board members.

The information in the course was informative and valuable, and the feedback from the Board members was very positive. It was then determined by the Board that the information in the course would be a major benefit to anyone who lived on the lakes. It was reasonable to assume that any person taking the course would significantly heighten their awareness of their responsibilities of living on the water and their potential of becoming ambassadors /stewards of our educational efforts.

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Lakefront friendly landscaping Ideas

The PBWOA sponsored Board Member, Jan Arps-Prundeanu's, attendance at the Shoreline and Shallows Conference ("Increasing Habitat, Reducing Threats") in March of 2017, was sponsored by the Michigan Natural Shoreline Partnership. Julia Kirkwood, (Michigan DEQ) introduced the Shoreland Stewards Program which really caught Jan's eye. She already had a large lakefront garden, lovingly cultivated by her husband's late wife with a focus on improving the ecology of the lake. She was truly "ahead of her time." Jan also has a neighbor who has been an example of stewardship for many years – preserving the vegetation on her shore.

At the conference, Jan met Janee Kronk of Halcyon Earth and Sky who has completed the MNSP training program and is a Michigan Certified Natural Shoreline Professional. Together they assessed the garden with a focus on increasing more Michigan native vegetation and other design elements. Janee convinced Jan to keep all of the Joe Pye Weeds that had taken root on the shores – although she thought they were not so attractive. She is beginning to like them more and more as she appreciates their role in attracting bees and butterflies, and stabilizing the shore. She has added many Michigan native plants to the garden, including swamp milkweed, boneset, culver's root, and lake sedge. She has removed the invasive yellow iris that was starting to take over the shore. She now has sweet flag iris – which is not invasive. Since embarking on this project, she has also visited the demonstration gardens at the Kellogg Biological Station on Gull Lake for more ideas on improving her shoreline landscape.

Jan applied to become a Shoreland Steward through the self-survey online at www.mishorelandstewards.org/survey. The survey is a list of 38 questions focusing on your practices and your property. For example: Do you pick up pet waste on your property? Do you add leaves or sand to the lake? What percentage of your property is impervious? Do you use fertilizers in your buffer zone (35 feet from your shore) Do you have a variety of plants in your buffer zone? Native vegetation can help to keep the lake cleaner by slowing and filtering runoff from our property. Trees and shrubs provide needed shade and protection for aquatic animals and can protect the lake edge from wave and ice erosion. Vegetation can also keep the geese away from your shore! The process of doing the survey made Jan more aware of the many things we can do to make our lakes healthier.

There are three levels of "stewardship" and Jan was awarded Silver Level recognition – the middle level. The program also makes recommendations on how to improve your level of stewardship. She purchased the Stewardship sign as a way to increase awareness of the program. The PBWOA is one of many lake associations that partner with the Michigan Natural Shoreline Partnership. The lake associations will be notified if anyone on their lake becomes a Michigan Shoreland Steward. We encourage you to check it out.

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Jan's lakefront

Education

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PBWOA sponsored Boater's Safety Classes

Since approximately 2002, the PBWOA has sponsored boater safety classes with the help of Portage Yacht Club who graciously provides space for the classes at their facility. The Washtenaw County Sheriff's Marine Division provides a sheriff for an entire day to teach the class and answer questions.

The classes teaching both young (12 year olds) and older students each spring have been very well attended by local residents or lake owners. As many as 30 to 50 students have attended each year and obtained their certification to safely operate a boat or personal water craft.

Lake Water Quality Testing

Our Portage, Base, Whitewood Owner's Association has been involved with lake water quality testing for many years and has collected data going back as far as 1975. The board of directors funds the cost for testing on Little Portage, Portage, Baseline, Tamarack and Whitewood lakes. The actual water sampling is being done by PBWOA volunteers on the various lakes. We have a team of eight volunteers doing testing--some with over 10 years of service to the lake community.

The testing that has been done includes:

- **Secchi Disk-a test to determine the lakes clarity by measuring depth of light penetration**
- **Spring & summer total phosphorus**
- **Algae Chlorophyll**
- **Dissolved Oxygen & Temperature**

The data collected by our volunteers helps determine changes to our chain of lakes over a broad period of time. Lakes being monitored are classified as "mesotrophic", meaning that there is a moderate amount of nutrients in the water allowing for plentiful fish production, but not enough to cause dangerous algae blooms.

All data collected by our team of volunteers is uploaded into The Cooperative Lakes Monitoring Program (CLMP). This is a significant partnership effort between the Department of Environmental Quality (DEQ), the Michigan Lake and Stream Associations, Inc. (ML&SA), the Great Lakes Commission, Michigan State University, the Huron River Watershed Council and our PBWOA. The CLMP is a key program in the Michigan Clean Water Corps, a statewide volunteer water quality monitoring network. We are collectively able to gather, analyze and record important data on Michigan lakes with the CLMP partnership that otherwise would not be available. The data collected by our volunteers will be used to help determine changes to our chain of lakes over a period of time. *Thank you volunteers!!*

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Lake Management Program

In the winter edition of *The Michigan Riparian*, we summarized the efforts that lead to a successful implementation of a lake management program. Following is a detailed overview of the details and efforts that went into it.

The PBWOA and its Board of Directors are very proud of PBWOA's many accomplishments over the years, but perhaps most proud of the establishment of our local Lake Management Program - the Chain Of Lakes Improvement Project. With its formal establishment this year, it encompasses 2,439 properties: 1,539 are lakefront owners, 833 are lake access owners and 11 are commercial properties. A total of $381,769 will be collected annually: $275,935 from lakefront owners, $81,834 from lake access owners and $24,000 from commercial properties. The Project will enable effective stewardship and protection of our chain of lakes and river ways, with an emphasis on weed control and management, invasive vegetation, property values, fisheries, health, recreational and other uses.

This was a daunting task as our chain of lakes includes nine lakes, portions of the Huron River, residential and business uses, four townships and two counties. The PBWOA has members in about half of the lakes, while the other lakes have small or no associations. However, a plan was formulated and carried out with great teamwork, time and effort, as well as a few dollars.

The first step in the process to establish the Lake Management Program was the acknowledgment of the weed problem, particularly the invasive weed species. As all Michigan Lake Associations know, this is, unfortunately, a major problem which required major action. The Board next had to consider the geographic area that would be included in the Program. With the PBWOA membership being the down river portion of our chain of lakes, it became apparent that efforts to control weeds most efficiently, systematically and for the greatest significant impact would require that the entire chain ecosystem would need to be included.

The next step was determining the form and structure of the project. There are multiple statutes, all of which have their pros and cons: the Natural Resources & Environmental Protection Act 451 of 1994, the Michigan Drain Code Public Act 40 of 1956, MCL 211.741; Public Improvements Act 188 of 1954 and Public Works Act 185 of 1957, as well as others. The PBWOA Board for years had sent representatives to the annual Michigan Lake and Stream Associations conference. At the conference, PBOWA Board members took advantage of the experts present - talking with drain/water resource commissioners and their staffs, lake scientists and other lake association board members from around the state. Their insights were of great assistance and aimed us in the right direction. This information was brought back to our Board, which furthered its due diligence in moving forward under Public Act 185. Hint: Understand that these statutes and laws are complicated and do not be afraid to ask for advice. Also, take advantage of MLSA and it's deep expertise and knowledge.

Act 185 requires cooperation of all governmental units within the targeted area. The PBWOA had an outreach history with all of them. Generally, once a year the Board's monthly meetings take place either at each of the four township offices, or with the township supervisors/county commissioners coming to one of our meetings. Although electronic communications are fine, the face to face discussions with the township supervisors and drain/water resource commissioners mattered. PBWOA board members could request and meet with these officials based on our history of credibility and open communications. Hint: Talk honesty and openly with people in your local government, and make sure to meet with them in person.

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Boats on the Chain

There are over 5,500 Boats on the Portage Chain and every three years we subsidize a boat survey performed by PBWOA Member, Dick Knight. The survey does an excellent job of counting all boats on the respective lakes even those on shore. Results of the 2016 survey compared to that of 2013 are summarized here.

The report lists not only the number of boats but also what style of boat. It includes all nine lakes (Little Portage, Portage, Base, Tamarack, Whitewood, Gallagher, Strawberry and Zukey) as well as the canals, ponds, lagoons, launch sites, marinas, out-lots and Sail Clubs. The most significant change is the increase in the number of paddle-powered boats including stand-up paddleboard (SUPs).

Changes from 2013 to 2016 were

Pontoon Boats:	**+89**
Power Boats:	**-7**
Jet Skis:	**-25**
Fishing Boats:	**+65**
Sailboats:	**-35**
Paddleboats:	**-48**
Canoes/Kayaks/SUPs:	**+240**

(increase of 279).

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PBWOA Website

The Association maintains a website, (http://www.PBWOA.ORG), to provide our members with information of interest to waterfront owners. In 2015 we contracted with a web designer to redesign the site based on more up-to-date design software. The site is now maintained by a board member. A portion of the home page of that site is shown below.

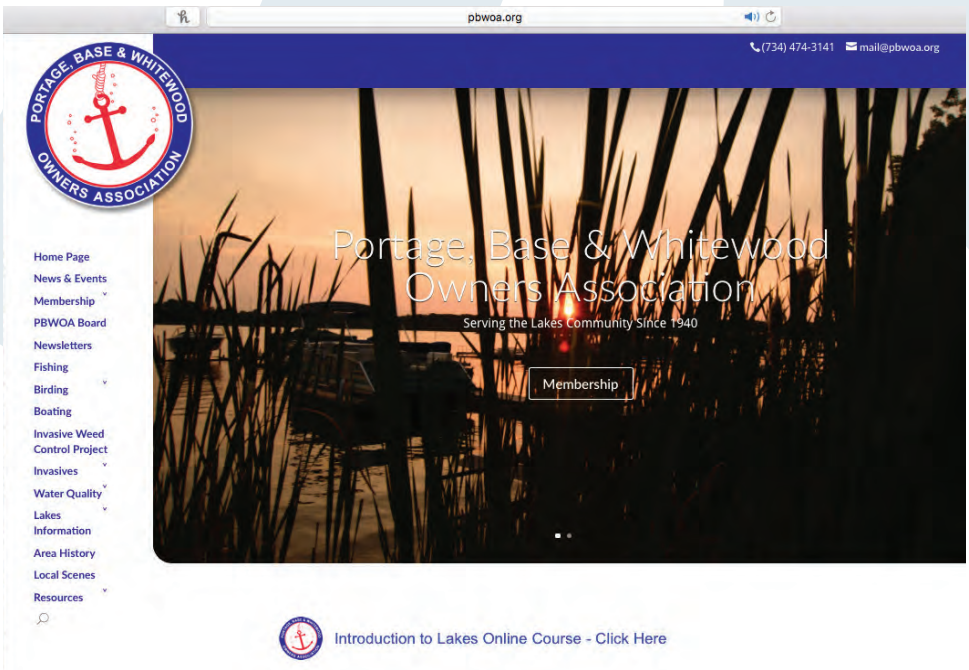
The navigation menu in the left sidebar gives access to the various topics on the site. The "News & Events" topic is frequently updated and has been popular with both members and non-members. For example, the page providing information on the annual fireworks display received over 800 views. The banner ("Celebrate Lakes Appreciation Month") shown at the bottom of the figure changes every few seconds and each item can be clicked to link to information on the topic shown. We receive press releases from various agencies to feed our News and Events pages

The "Membership" menu item links to information on the benefits of membership as well as some of the accomplishments of the Association. The membership page also contains a link to allow individuals to sign up and pay dues online. This feature has increased in popularity each year it has been available.

The "Board" menu item links to a listing of Board members with phone numbers and also contains a contact form to send information to a PBWOA representative. Telephone, fax and mailing address information is also provided.

On the "Newsletter" page we provide access to back issues of the PBWOA newsletters. The newsletter is published at least twice each year. The spring issue of the newsletter contains membership signup information and is sent to both members and non-members and reaches almost 1,000 households. A later issue goes only to members.

The next three menu items are "one-stop" references on Fishing, Birding, and Boating. Each item contains links to both external and internal resources of interest to riparians. For example, the "Fishing" link gives access to the current Michigan Fishing Guide containing everything an angler needs to know about fishing in Michigan. It also contains illustrations of some local fish as well as an article by Board member Craig Kivi on fishing the Huron Chain. Similarly, the "Boating" link provides access to Boating Regulations and Boating Safety sites.



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The "Invasive Weed Control Project" menu item provides access to the results of a study by Restorative Lake Sciences commissioned by PBWOA in 2015. The 111-page report on that study is included in its entirety. That study led to 2-county, 4-township lake improvement project managed by the Washtenaw County Water Resource Commissioner's office.

The "Invasives" menu item provides links to help understand and identify invasive plants and animals. The emphasis is on aquatic invasives, but some links to non-aquatics are also included. This section relies on and links to the Midwest Invasive Species Information Network (MISIN), a service of the Michigan State University Extension Service. Not only does MISIN provide guides to the identification of invasives, it also provides a means to report sightings.

The "Water Quality" item provides information on PBWOA's efforts to monitor the quality of the water in our lakes. For many years, the Association contracted with a limnologist, the late Wally Fusilier, to study and report on the conditions of our lakes. The site has Wally's reports going back to 1994 up to his retirement in 2010. Starting in 2015, PBWOA participated in the Cooperative Lakes Management Program (CLMP). The CLMP reports, while not as extensive as those we obtained from Wally, provide data on the state of the area lakes that can be used to track long-term changes in water quality. Also, under Water Quality, we include information on shoreline maintenance and how shoreline conditions affect water quality.

The item labeled "Lakes Information" contains some statistical information on the lakes such as area, shoreline length, depth, etc. Also included under this heading is a complete census of boats on the lakes which is conducted every three years by one of our members. The census is broken down by type of watercraft and location and includes marinas as well as public launch sites and private parcels. Other sub-items under "Lakes Information" include aerial photos of the lakes and a graphic record of water levels over the course of a one-year period. (Lake levels are maintained by a dam on the Huron River. Summer levels are set by court order at 851.55 feet and a winter drawdown of 15-18 inches is set to protect shoreline structures.)

I'll save the "Area History" link until last and now consider the "Local Scenes" and "Resources" links. Clicking the "Local Scenes" link plays a slide show of, well, local scenes – photos contributed by members. The "Resources" link leads to information on Legal Matters, on the Michigan Lake and Stream Associations and on links to useful external sites. Those sites include Michigan Government Sites, local township and county sites, sites of interest to riparians, and local businesses.

The Area History Project

Last, but by no means least, the "Area History" link jumps to another website (http://www.historypbw.org) that is a collection of items on the history of the area. A portion of the home page of that site is shown below.

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PBWOA Website

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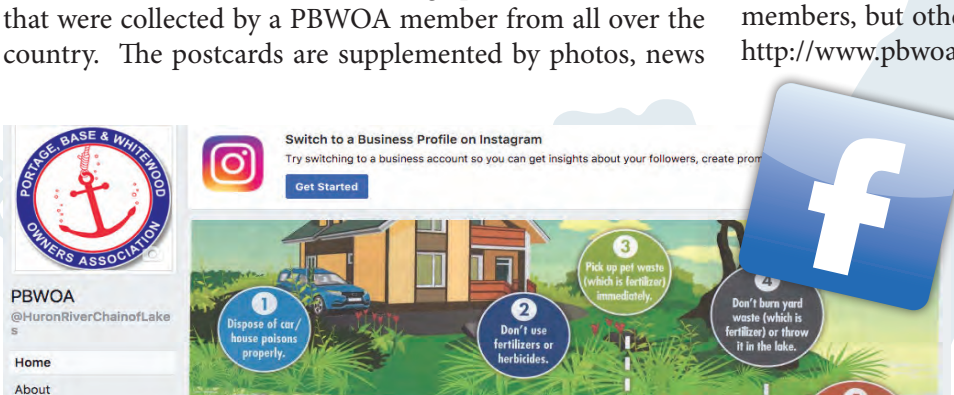
This project was conceived by a group of members in 2002. They started collecting photos and interviews with long-time residents about the early days on the Chain of Lakes. A great deal of material was collected and the plan was to put together a book on the history of the area. Eventually, several of the key members of the history committee left the area and the project sat idle for several years until a member expressed an interest in reviving the activity. Instead of a book, however, we decided to present the material on a website which could be updated as new material was obtained and which would be significantly less costly than publishing a book.

Although the PBWOA membership is drawn primarily from Portage, Base, Tamarack and Whitewood Lakes, the early history of the area originates around Zukey Lake where the railroads from Detroit first dropped off vacationers and early settlers. For that reason, the history site is organized geographically as if one were travelling downstream from Zukey Lake to Portage with stops at the towns of Hamburg, Lakeland, Pinckney, Hell and Dexter (even though the last three towns are not actually on the Chain.) A major portion of the site consists of over 200 vintage postcards of the area that were collected by a PBWOA member from all over the country. The postcards are supplemented by photos, news clippings, and pubic documents collected from members.

At the end of the menu of links is a section titled "People and Memories" that consists of essays by and about area residents concerning their personal histories of the area. One of the most interesting items in this section details how, in 1911, a Detroiter got to Portage Lake by taking a street car, then a milk train to Dexter, then by horse and buggy to Portage Lake. Not knowing what to expect at their destination, they carried all the provisions they thought they would need for their time at the lake.

We hope our two websites are serving as a one-stop-shop for items of interest to Michigan riparians, not just our members, but others as well. Please take some time to visit http://www.pbwoa.org and http://www.historypbw.org.



PBWOA Facebook

Since the 1940s, the PBWOA has had to evolve and change with the times. The current board decided to evolve once again and in mid-2017 embraced the use of Social Media, namely Facebook, to inform and educate members and non-members alike.

Our Facebook page gives us the ability to rapidly disseminate information and educate at the same time. Facebook provides the avenue for members to interact in the communication process. We believe this stimulates interest and involvement.

The information shared includes:

- Activities / river closures associated with the new bridge construction on McGregor Road
- Dates for lowering the water levels for the winter months
- Lake Management meetings and workshops
- Local river cleanups
- News feeds and the sharing of information
- Links to resources of interest to Riparians
- Educational material, etc.
- Membership Sign Up

One example of the educational material we put on Facebook is a brochure which we developed and will mail to all Riparians on the chain this spring. (See posting on left)

Stay in touch with the PBWOA. Follow and Like our Facebook page.

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Do All Riparians Hate Public Lake Access Sites?

By Clifford H. Bloom, Esq.
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There seems to be a common misperception that all riparians dislike public access sites on their lake. While it is always hazardous to generalize about any group (including riparian property owners), the belief by some that most riparians oppose public lake access sites is generally erroneous.

Of course, some riparians do oppose public access sites on their own lake as a matter of self-interest or as a "matter of principle." However, the feelings of most riparians about public access sites are more complex and oftentimes subtle. And, in many instances, concern about public access sites on relatively small inland lakes in Michigan is both rational and justified.

Public access sites for boats and watercraft on the Great Lakes and on large Michigan inland lakes often have minimal negative impacts upon lakefront property owners on those lakes. On larger bodies of water, boat overcrowding is generally not the significant problem it can be on smaller inland lakes and conflicts among lake users are simply generally less frequent on larger bodies of water. On smaller bodies of water, public access sites can cause overcrowding of the lake involved or exacerbate existing overcrowding problems.

Riparians on inland lakes often confront what has been referred to as the "rental car" problem. As most people know from experience, the users of rental cars tend to treat the rented vehicles with less care than their own automobile or truck. Likewise, boaters who use public access sites on lakes where they do not own property are typically not as considerate as they might be in their own lake neighborhood. Issues with reckless boating behavior, littering, loud partying, abusing alcoholic beverages and similar problematic behavior can increase when a boater is using a lake in which they have no vested or personal interest. Although the evidence is anecdotal, riparians on lakes that had their public access closed or severely restricted have frequently reported that littering, reckless boating behavior and similar negative problems decreased thereafter.

Many of the problems associated with public lake access sites arise out of a failure by the Michigan Department of Natural Resources (the "DNR") or local governmental officials to sufficiently police their public access sites or tailor the sites to "fit" the lake involved. For example, public access sites (and their parking facilities) should be "sized" to the inland lake involved.[1] While fully improved public access sites with parking for dozens of vehicles may be appropriate for the Great Lakes and large lakes such as Houghton Lake or Higgins Lake, the same would not be safe or reasonable for a small 40-acre inland lake. The DNR and local governmental units should be required to carefully monitor and police their public access sites, even to the point of having an attendant physically present for larger sites. Public access sites on smaller lakes should limit the size, type and horsepower of boats that can be launched. On a 60-acre inland lake, kayaks, row boats and small fishing boats might be appropriate while speed boats, ski boats and larger motor boats should not be allowed. Just as certain public trails limit use to foot traffic and bicycles (and prohibit snowmobiles, trucks, ATVs and side-by-sides), so too should public access sites on small lakes limit types of usage.

Unfortunately, our state government appears to have an unwritten rule or philosophy that has been followed for the past half-century or more – the more boats and watercraft that can be jammed onto an inland lake in Michigan, the better for purposes of tourism, commerce, business, etc. That unwritten policy is not only unreasonable, but it makes for unsafe boating, negatively impacts property values and likely actually hurts tourism by overcrowding lakes and degrading the quality of our beautiful natural resources.

Most riparians are amenable to reasonable public access for lakes. Very few riparians oppose public access sites for swimming, sunbathing, lounging, fishing, kayaking and similar low-impact activities. And, in fact, most riparians do not have a problem with the use of public access sites for rowboats, sailboats, and small fishing boats. It is the sometimes negative, high-impact uses (i.e., large power boats, ski boats and wake boats) that are problematic.

Lake public access sites also contribute to the transportation of unwanted aquatic invasive species to lakes. Such "unwanted visitors" on boats and watercraft can include Eurasian milfoil, zebra mussels, phragmites and unfortunately, and likely in the future, Asian carp. Again, the DNR and local governmental authorities with public access sites have an abysmal track record regarding the mandatory washing of boats and watercraft (and monitoring thereof) by members of the public when they launch a boat at a lake public access site.

(Continued on page 17)

2018 WINNERS ANNOUNCED

Since 2008, the Cooperative Lakes Monitoring Program (CLMP) has held an annual drawing for the volunteers who enter their lake data into the online MiCorps Data Exchange. This year, one lake was selected randomly for each CLMP monitoring parameter to receive a waiver for FREE enrollment in that parameter for 2018.

THE WINNERS ARE:

Secchi Disk Transparency goes to
Juno Lake in Cass Co. – Doug Hansen, volunteer

Spring Total Phosphorus goes to
Ann Lake in Benzie Co. – David Maxson, volunteer

Summer Total Phosphorus goes to
Tie Lake in Alger Co. – Joanne Saari, volunteer

Chlorophyll a goes to
Little Glen Leelanau Co. – Mike Litch, volunteer

DO/Temp: goes to
White Lake (East) Muskegon Co. – Tom Tisue, volunteer

Do All Riparians Hate Public Lake Access Sites?

(Continued from page 15)

So is opposition by riparians to public access sites selfish and unreasonable as goes the common misperception? Perhaps in a small minority of cases, yes. However, in many other cases, the concern by riparians is both rational and warranted given the host of challenges and real negative impacts that can result from poor (or absent) use policies and enforcement.

To summarize, the following are some of the typical problems associated with public access sites on smaller lakes in Michigan:

1. The "rental car" syndrome.
2. Littering.
3. The carrying in of harmful aquatic invasive species when boats or watercraft from other areas are launched.
4. Speeding, careless or reckless boating.
5. Causing overcrowding (or further crowding) on lakes with boat traffic.
6. Negative impacts on property values.
7. Rowdy behavior, partying, excessive drinking of alcohol, etc.

The following are some of the policies that the DNR and local governmental units that own or control public access sites should undertake:

A. Tailor the particular public lake access site to the lake involved, both in terms of the amount of parking and the uses allowed.
B. Actively police and regulate the public access sites, including towing of vehicles where appropriate.
C. Use gates or other appropriate barricades to "close" public access sites during night hours.
D. Have real human beings present as attendants for the busier public access sites.
E. Require the washing of boats and watercraft when they are removed from the water and provide facilities for such washing.
F. Impose a permit fee system and use the funds only for improving, policing and regulating the public access site.
G. Use increased police patrols to minimize, catch and punish bad behavior.
H. Have trash and garbage disposal receptacles and facilities present on site that are regularly emptied.
I. Post all of the lake access and boating rules and regulations at the site.
J. Close public access sites that create severe problems.

[1]*I authored an earlier article for The Michigan Riparian Magazine in August, 1998 called "A Modest Proposal" regarding tailoring the size and type of public access facility to particular lakes.*

Tamarack Lake

(Continued from page 14)

Found among the Portage Chain of Lakes situated between Baseline and Whitewood Lakes is a small gem called Tamarack Lake. Uniquely long and narrowly shaped, Tamarack has several deeper bay lobes giving this lake an elegant curvature at almost every turn with sharp extended points far different from the typical round lake. We often slowly cruise the shallow shorelines waving to friendly neighbors while looking at fish, turtles and many other interesting things under the surface in aquarium clear water unaffected by the normal turbidity caused by motorboats on other lakes.

The dramatic hilly terrain on one end and flat shoreline terrain elsewhere makes one wonder how this lake was formed. Interestingly, it doesn't seem to fit the mold of the other lakes on the chain which is a pleasant change. The mix of homes on this lake is worth mentioning too, from tasteful small cottages to large luxury homes – all well cared for. It seems this community has a quiet pride in their lake life.

Fishing enthusiasts will find fishable populations of Largemouth Bass, Northern Pike, Bluegill, Crappie and Perch available--enough for a seasoned angler and a terrific place to take a young kid for their first few outings.

On one particularly memorable day, we bought take out cheeseburgers and fries from Portage Yacht Club on Portage Lake, then made our way upriver to the sanctuary-like calmness of Tamarack. The giant, easily navigated cement tiles we went through and under a road to enter Tamarack Lake seemed fitting, like a portal to a different, better experience. Standing up, one can just imagine a car going overhead just a few feet above you. Like always, I took a deep breath and sighed; I knew just being on this lake would settle me down shortly.

On this busy weekend day, while eating lunch on serene, calm water, our boat floated perfectly still; and we carried on uninterrupted conversations while reaching a hand over the side of the boat to gently swish it back and forth feeling the soft, cool water between our fingers. Remember those days? Why, even a Pepsi could sit on the dash and not spill.

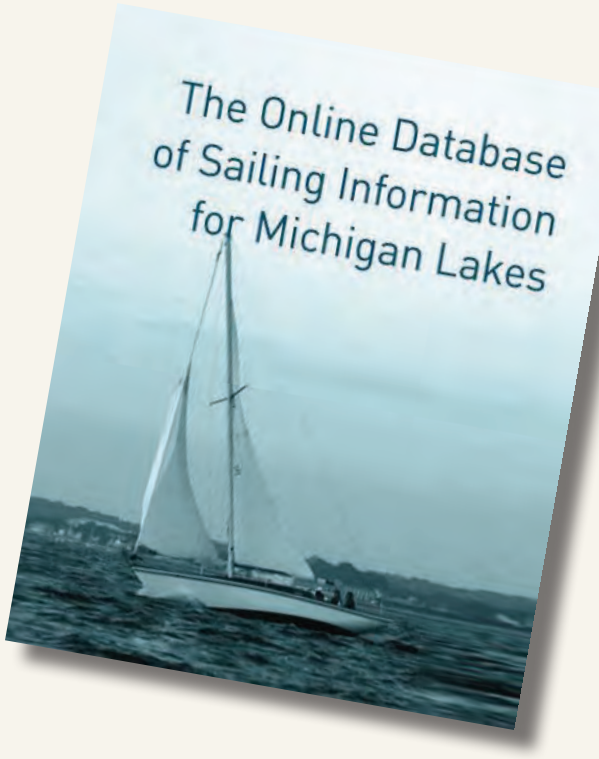
Everything settled down as we listened to kids playing on the shoreline and floating on blow-up rafts in the middle of the lake. What a contrast to the pounding and ringing of jet skis, giant ocean-like rolling waves from wakeboard boats and general congestion found on most popular lakes, a testament and honor to those residents who fiercely guard their "no wake" status of this small treasure Tamarack Lake.

Send us your lake association newsletter or special announcements electronically. We love hearing from your lake. We will continue to use and spread the interesting and informative things happening on your lake in *The Michigan Riparian*. Please send your lake association newsletter to: swagner@mlswa.org.

LOVE TO SAIL OR WANT TO LEARN MORE ABOUT IT?

Love to sail? Wonder where to find the best lakes for sailing? Visit www.sailmichigan.org website and plug into its searchable database. With over 600 inland lake boat ramps and Great Lake harbors, this website offers some very helpful information.

This is a user-friendly site. The 'sailing resources' tab directs you to information about buying equipment, learning to sail, locating sailing clubs and crews and a lot more. There's information about sailing the Great Lakes, too. If you love to sail or want to learn how, check out this website. It's very good.



SAIL Michigan

NON-CHEMICAL CONTROL OF THE INVASIVE PHRAGMITES AUSTRALIS

AN UPPER LONG LAKE SUCCESS STORY

By Ron Cousineau and Mike West
Upper Long Lake Management Committee

Anyone living on a Michigan wetland or inland lake will, most likely, soon see the invasive plant Phragmites australis appear, if it has not already done so. Once a solitary plant becomes established it will reproduce by developing seeds, but it also spreads by sending out shoots in all directions creating an interconnected stand. Capable of growing well over eight feet tall, it blocks sunlight from competing plants, weakening them and further enabling its spread. With no known insects or parasites that feed on it, there is little to control its spread; and it soon crowds out native plants changing your local ecosystem. Human involvement is the one factor available to contain the plant. This story is about the Upper Long Lake Management Committee and how we have learned to deal with the plant. We have returned a one acre of Phragmites infestation back to native plants—without the use of chemicals!

Upper Long Lake is situated in a residential community in Oakland County, Michigan. It is a 121-acre lake, relatively shallow, with an estimated average depth of 9-10 ft. (26 ft. at deepest point) and is at the headwaters of the Rouge River. Formed by the last glacial activity, it is one of a few hundred lakes in the county. (see photo A)

The Upper Long Lake Management Committee has responsibility for monitoring and maintaining lake health. In 2009, the committee took action on an approximate one acre sized patch of the invasive Phragmites australis that was rapidly expanding in an island and marsh area. A permit was obtained and the plan was to burn the patch and, then in the spring, when the Phragmites had grown sufficiently, to apply herbicides.

Two problems immediately arose. First, burning was prohibited in Bloomfield Township where the Phragmites patch was located. So, during the winter, a work crew went onto the ice, cut the dried stalks along with everything else that was within the Phragmites patch, placed them on

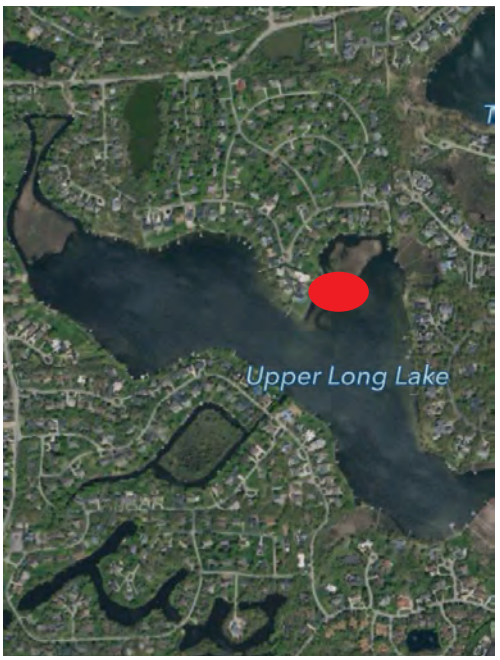


Photo A – Aerial View Upper Long Lake & Phragmites Infestation

Photo B – Scattered Seeds and Cuttings from Cut and Remove Process

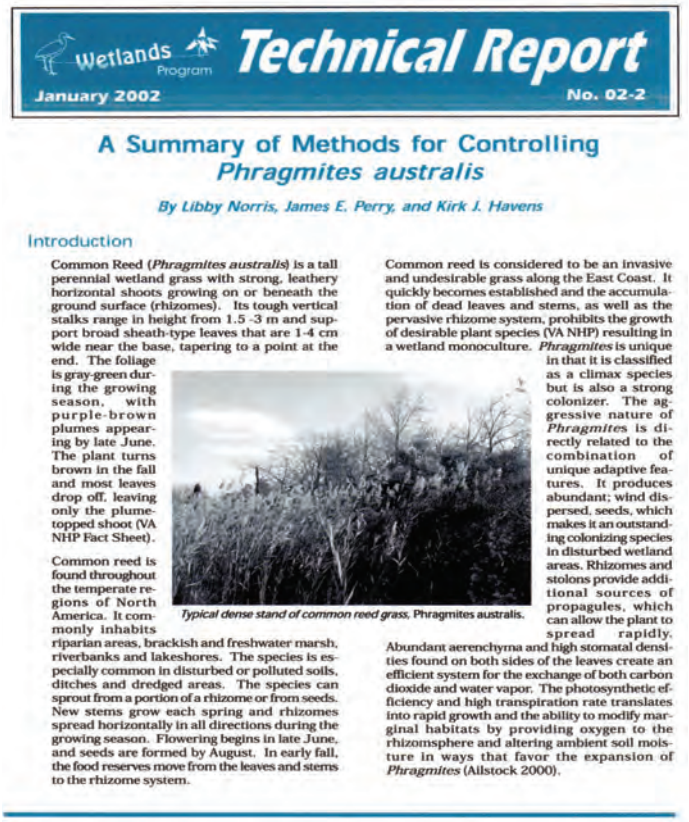
(Continued on page 21)

(Continued from page 20)

tarpaulins and dragged them to trucks which hauled them to a designated dump site. The problem with this technique was that containing the Phragmites seeds was nearly impossible, and they quickly became scattered along the pathway from the site to the trucks. (See photo B)

The second problem occurred when the homeowners, adjacent to the Phragmites site, learned that herbicides were going to be applied almost in their backyards. The application options were to manually wipe the herbicide onto the plant or to spray it on. The terrain of the marsh and island made it costly and difficult for the wipe method. Spraying seemed a more practical application method for the contractor, but was unacceptable to the neighbors. The concerns were that the spray could drift onto their property and the unknown effects to people, plants and animals.

The ULL Management Committee agreed to postpone the project until an alternative control plan could be found. Searching the web led to "Technical Report 02-2" published by the Wetlands Program of the Virginia Institute of Marine Science, William & Mary. It described the plant in detail and offered both chemical and non-chemical control options. A meeting was set with Kirk Havens, PhD, one of the authors of the article and several non-chemical control options were outlined. (See photo C) https://publish.wm.edu/cgi/viewcontent.cgi?article=1651&context=reports



Wetlands Program **Technical Report**

January 2002 No. 02-2

A Summary of Methods for Controlling *Phragmites australis*

By Libby Norris, James E. Perry, and Kirk J. Havens

Introduction

Common Reed (*Phragmites australis*) is a tall perennial wetland grass with strong, leathery horizontal shoots growing on or beneath the ground surface (rhizomes). Its tough vertical stalks range in height from 1.5 -3 m and support broad sheath-type leaves that are 1-4 cm wide near the base, tapering to a point at the end. The foliage is gray-green during the growing season, with purple-brown plumes appearing by late June. The plant turns brown in the fall and most leaves drop off, leaving only the plume-topped shoot (VA NHP Fact Sheet).

Common reed is found throughout the temperate regions of North America. It commonly inhabits riparian areas, brackish and freshwater marsh, riverbanks and lakeshores. The species is especially common in disturbed or polluted soils, ditches and dredged areas. The species can sprout from a portion of a rhizome or from seeds. New stems grow each spring and rhizomes spread horizontally in all directions during the growing season. Flowering begins in late June, and seeds are formed by August. In early fall, the food reserves move from the leaves and stems to the rhizome system.

Common reed is considered to be an invasive and undesirable grass along the East Coast. It quickly becomes established and the accumulation of dead leaves and stems, as well as the pervasive rhizome system, prohibits the growth of desirable plant species (VA NHP) resulting in a wetland monoculture. *Phragmites* is unique in that it is classified as a climax species but is also a strong colonizer. The aggressive nature of *Phragmites* is directly related to the combination of unique adaptive features. It produces abundant; wind dispersed, seeds, which makes it an outstanding colonizing species in disturbed wetland areas. Rhizomes and stolons provide additional sources of propagules, which can allow the plant to spread rapidly. Abundant aerenchyma and high stomatal densities found on both sides of the leaves create an efficient system for the exchange of both carbon dioxide and water vapor. The photosynthetic efficiency and high transpiration rate translates into rapid growth and the ability to modify marginal habitats by providing oxygen to the rhizomsphere and altering ambient soil moisture in ways that favor the expansion of *Phragmites* (Ailstock 2000).

Typical dense stand of common reed grass, Phragmites australis.

Photo C – "A Summary Of Methods For Controlling Phragmites Australis" Wetlands Program, Tech Report 02-2, January 2002. Virginia Institute Of Marine Science

In 2009, our team elected to perform a discreet test on four of the options that seemed promising for our situation before embarking on a full scale program:

1. **Utilizing Lake Level Fluctuation**
2. **Hand Cutting Below Water**
3. **Covering The Plant**
4. **Mechanical Mowing/Cutting On Dry Land**

1. UTILIZING LAKE LEVEL FLUCTUATION

Our lake has a seasonal depth fluctuation, and we regularly record lake levels. In early March, at low water, a test section was cut at ice level with a steel blade weed whacker. As lake levels rose, this section was covered with 8" of water and the section saw a low rate of plant regeneration, approximately 20%.

When the plant is cut and then covered with 6-8" of water (even 1" can work) its vascular process is disrupted depriving it of oxygen and the plant dies. A further advantage of this technique is that native plants are spared.

Although successful in the first year, this technique is limited to early spring low water ice level. Our other control techniques were more flexible and more effective so we opted to use this method only when the winter lake levels were low, which was rare.

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NON-CHEMICAL CONTROL OF THE INVASIVE PHRAGMITES AUSTRALIS

(Continued from page 21)

2. HAND CUTTING BELOW WATER

This process is essentially the same control technique as cutting at low water level—the plant is cut, covered with water and deprived of oxygen. Several test sections were chosen from late spring through late fall and were hand cut below water. This method enables cutting the plant as deep in the water as possible and water immediately covers the cut depriving it of oxygen. Where the cut was deep enough that water covered it for a long period of time, a success rate of 80-95% was achieved.

Although labor intensive, the benefit of hand cutting under water was apparent. Very few Phragmites returned. No native plants were disturbed and where they were once crowded out by Phragmites, the native plants returned.

This method was successful and was continually utilized in our program. (See photos K, L and M)

3. COVERING THE PLANT

Covering the plant can deprive it of sunlight and can generate heat. Either factor can be terminal to a plant. Two 8-foot square black materials were chosen for our test: a heavy rubber EPDM; and a lightweight geotextile. In early August, the covers were placed over a Phragmites area that was cut to the ground. The plants tried to regenerate, but after two months they were whitish in color and were laying on the soil rather than growing upright. We removed the covers and within weeks the plants were growing upright again.

This method was not successful for our purpose. Furthermore, handling the cover was not practical. Transporting the covers to the island and then removing them was difficult. Also, the covers, when in place were unsightly. It was decided not to pursue covering as an option. (See photo D)

(Continued on page 23)

Photo K – August 23, 2009 Hand Cutting Below Water Level Was 95% Effective In Preventing The Return Of The Plant

Photo L – October 2010, Hand Cut Test Area 14 Months Later Shows No Phragmites Return. Mowed Area Shows Phragmites Return, But Less Dense, No Seeds And Native Plants Came Back

Photo M – October 2010, Second Hand Cut Test Area Shows No Phragmites Return. After 14 Months, Native Plants Returned

NON-CHEMICAL CONTROL OF THE INVASIVE PHRAGMITES AUSTRALIS (Continued from page 22)

4. MECHANICAL MOWING / CUTTING ON DRY LAND

When this project first started, most of the one-acre infestation was solid Phragmites. Utilizing a steel blade weed whacker enabled cutting large sections of Phragmites. The steel blade was essential because the high SiO2 content of Phragmites makes it resistant to string grass whips.

When the plant is cut to the ground, it draws energy from its roots or from the mother plant to regenerate. Repeated cutting depletes its energy source and the plant will weaken and eventually expire. Each time a cutting took place, we estimated that the return rate was from 30% to 50%.

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Photo D – Covering The Plant. Test Of Two Different Cover Materials, August 2009

CONSIDERING CONSTRUCTING A BOAT WASH STATION?

By Mike and Kathy Gallagher (Board Members of Gull Lake Quality Organization)

ARE YOU THINKING OF CONSTRUCTING A BOAT WASH STATION? HERE ARE SOME NOTES ABOUT THE GULL LAKE SITE THAT MIGHT HELP YOU.

Get to know your township officials long before you start your project. Prairieville Township was a huge help to us and even funded $10,000 of our construction costs. Our sewer department also was of great assistance to us in planning and construction.

Managing weekend traffic at our launch site is a real challenge. To improve traffic flow we removed lots of pavement and curbs which caused demolition and concrete costs to be high. Replacing those curbs and gutters and adding two concrete drain pads were big expenses. Repaving was paid for by the township.

We were lucky to have the sanitary sewer close by, and we use it. We did have the expense of connecting to the sewer line but are not charged for our waste water. It is minimal.

We check all boats for aquatic invasive species as they arrive and wash them if needed. Most boats arrive clean. All departing boats are washed. Other lakes don't want our zebra mussels! Having two high pressure wash stations allows us to avoid delaying boaters arriving or departing. It did double our cost of pumps and drain pads, though.

Our 10 X 10 wooden shed came preassembled and delivered. It gives us plenty of room for two sets of pumps, a water heater and a work station for the attendant.

We intended to wash all boats with hot high-pressure water. Our water heater could not keep up so we changed our plumbing and use low-pressure hot water only when back flushing bilges and live wells.

We have a third location for washing boats only as they depart. That rinse water goes to a settling pit and

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CONSIDERING CONSTRUCTING A BOAT WASH STATION?

(Continued from page 24)

eventually back to the lake. It saved us the cost of a drain pad and a high-pressure pump. That location is rarely used.

Education of boaters is critically important. We spent several weeks at the launch site, prior to opening the wash station, talking to boaters and letting them know what to expect when we started operating the boat wash stations. Fliers on windshields, articles in newsletters and web pages, and a television interview all helped to spread the word.

We hired and trained four high school students to operate the boat washes. They were employed by the township, and we reimbursed the township for their wages which totaled just over $5,000 for June-August. Several retirees volunteered to assist also. Don't plan on volunteers to do everything.

Almost all boaters want to do the right thing and protect our lakes. We found that if we welcomed them to the Prairieville Park on Gull Lake and treated them as our guests, they were happy to work with us. Most now wash their own boats even when we are not there!

BOAT WASH MAJOR CONSTRUCTION COSTS

Excavation and Demolition	$8,650
Concrete (curbs, gutters, drain pads)	$15,316
Shed	$3,475
Utilities	$9,364
Pumps and Equipment	$15,006
Electrical	$6,541
General Contractor and Permits	$4,025
Total Cost	**$62,402**

If you have questions, feel free to call me at 269-209-1566 or come to the ML&SA annual convention at Crystal Mountain on April 20-21 and we can talk about it.

NON-CHEMICAL CONTROL OF THE INVASIVE PHRAGMITES AUSTRALIS

(Continued from page 23)

Photo E – Weed Whacker With Steel Blade, Early In Program

Photo F – Steel Blade Weed Whacker Close Up View

The next season native plants began to appear and, to protect them, hand cutting Phragmites was necessary. This reduced the use of the weed whacker and added to labor cost because it was more time consuming.

Initially, problems were encountered establishing a regular cut cycle. Finding labor, finding the right equipment and personal time to manage the project (this was and is a volunteer effort) all contributed to delays. Once a regular cut cycle was established (initially 2 or 3 times a season) clear progress was made. After one year the return of native plants and the disappearance of Phragmites was impressive and encouraging. (See photos E & F)

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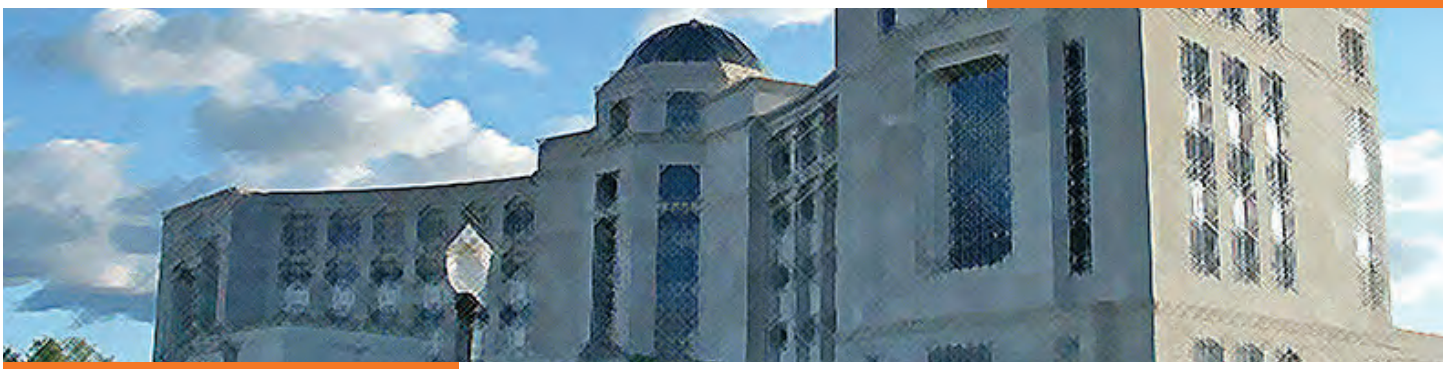
Important Michigan Court of Appeals Decisions

By Clifford H. Bloom, Esq.
Bloom Sluggett, PC | Grand Rapids, Michigan | www.bloomsluggett.com



ANOTHER MICHIGAN COURT OF APPEALS ROAD END CASE

On January 16, 2018, the Michigan Court of Appeals issued its unpublished opinion in the case of *In re Joseph M. Drago Revocable Trust/Drago v Savage* (Case No. 335472; 2018 WL 442219). The properties involved were at Eight Point Lake in Clare County, Michigan. The subdivision in which the properties are located dedicated a private road that terminated at the lake "to the use of The Lot Owners." Consistent with long-standing Michigan appellate case law, the Court of Appeals held that the road could be used by the backlot or off-lake property owners for access to the lake only – the road could not be used for overnight or seasonal boat mooring, docking or storage. The Court also confirmed that one dock could be installed at the road end at the lake for day use only, but that boats and watercraft could not be moored or docked at the common dock overnight or seasonally. The adjoining riparian property owners had objected to the presence of a dock, even for strictly day use. However, past Michigan appellate cases have also clearly indicated that one common dock is typically allowed at a private or public road end at a lake if the road is wide enough to accommodate it reasonably and it is used for day use only.

For past articles regarding road ends at lakes and riparian issues, please visit either the Michigan Lake & Stream Associations, Inc. website at www.mymlsa.org or *The Michigan Riparian* website at www.mi-riparian.org.

* * *

AN IMPORTANT SHORT-TERM RENTAL DECISION

My earlier article on short-term rentals in Michigan appeared in the Summer, 2017 issue of *The Michigan Riparian* magazine. Recently, the Michigan Court of Appeals issued a published decision which could have significant impacts upon short-term rentals throughout Michigan.

The phrase "short-term rental" typically means the renting or leasing of a single-family cottage or house to one family for relatively short periods of time. Unfortunately, neither state law nor most municipal zoning ordinances define when a short-term rental ends and a long-term rental begins. However, for purposes of discussing the topic, a short-term rental is generally any rental that occurs for less than a week or two.

Most municipal zoning ordinances in Michigan do not expressly regulate or prohibit short-term rentals, although a handful of municipalities do have regulations that do. Most municipalities have taken the position that a short-term rental does not violate the local municipal zoning ordinance so long as the dwelling is occupied by only one family at a time. There has been legislation introduced in the Michigan Legislature to prohibit municipalities from banning or regulating short-term rentals, but as of the date of this article, none of that legislation had been enacted.

In a few cases, property owners in a deed-restricted community or neighborhood have argued that short-term rentals violate a regulation in the area's deed restrictions, restrictive covenants or equivalent restrictions (hereinafter, "deed restrictions") allowing only single-family residential uses or prohibiting commercial uses. The Michigan courts have reached mixed results in the past in those deed restrictions cases. However, on November 30, 2017, the Michigan Court of Appeals in *Eager v Peasley*, ____ Mich App _____ (2017) (2017 WL 5907310) held that a short-term rental did violate the deed restrictions applicable in an Alcona County deed-restricted community. The deed restrictions at issue only allow "private occupancy" of dwellings and also prohibit "commercial use." The Court held that the phrase "private occupancy" means the same as "private residence." The Court also found that even renting a dwelling part-time for short-term rentals (with the owner occupying the dwelling the rest of the year) can still constitute a prohibited

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Important Michigan Court of Appeals Decisions

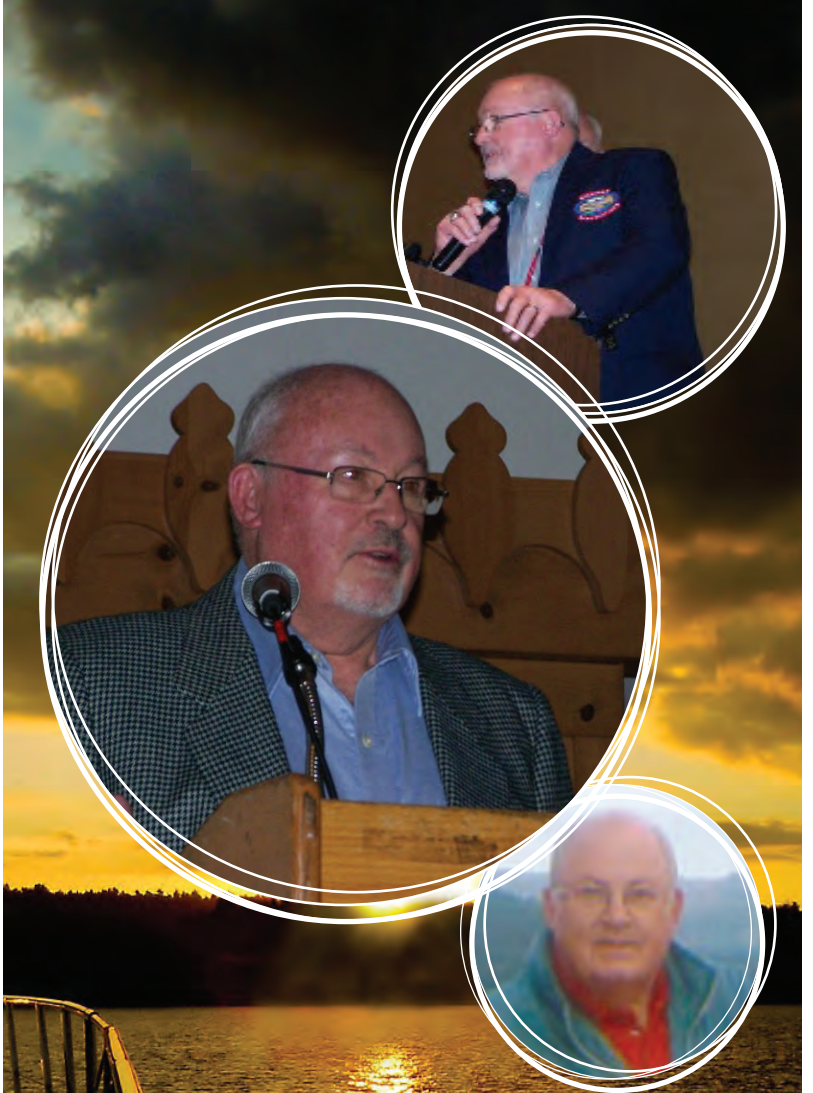
(Continued from page 27)

"commercial use." There was, however, a vigorous dissent in the case decision by Judge William B. Murphy.

Several months earlier, the Michigan Court of Appeals held in a similar case that short-term rentals violated the "residential use only" and "non-commercial use" requirements in deed restrictions in a neighborhood. That case was *Baukham Trust v Petter* (unpublished decision by the Michigan Court of Appeals dated September 19, 2017; Case No. 332643; 2017 WL 4158025). That decision is technically not binding precedent since it was "unpublished."

It is not clear whether the Michigan courts hereafter will extend the decision in *Eager v Peasley* and hold that conventional municipal zoning ordinances allowing only single-family residential use or prohibiting the commercial use of dwellings will prohibit short-term rentals. However, the language of the deed restrictions in *Eager v Peasley* likely varies significantly from the wording in most single-family zoning districts and municipal zoning ordinances throughout Michigan.

Michigan Lake and Stream Associations Mourns the Loss of our President and Good Friend Dick Morey



By all measures,
our dear friend and colleague
Richard "Dick" Morey
lived a full and meaningful life.

By Scott Brown, ML&SA's Executive Director

Passing away on the evening of Wednesday, January 31st, Dick's 79-year purposeful journey came to a peaceful end in the presence of his loving wife Darlene, son Scott, and best friend Jim Sullivan at his Magician Lake home following a courageous yearlong battle with cancer.

To say that Dick will be sorely missed by everyone who knew him represents a profound understatement. As amicable and as "down to earth" as anyone could possibly be, Dick's life was essentially defined by his love and devotion to family and friends, and by a remarkable history of dedicating significant portions of his time, energy, and talents to giving back to his community and working to improve the lives of others. In spite of having lived an extraordinarily productive and accomplishment filled life, our friend Dick always maintained his humble demeanor and held true to the core values and lessons learned as a young man growing up in the southwest Michigan community of Niles.

A member of the Niles High School Class of 1956, Dick resumed his academic career at Michigan State University where he majored in marketing and played trumpet in the Spartan marching band. Graduating in 1961 with a newly minted four-year degree, Dick soon began a highly successful 26-year career as a regional marketing and sales manager for Amoco. Marrying the love of his life, Darlene, in the fall of 1966, the couple would raise daughter Stacy and son Scott in Saginaw, Michigan and Crete, Illinois, and would move to their lakefront home on Magician Lake in Cass County following his retirement from Amoco.

The opportunity to retire at a relatively young age would offer Dick the chance to pursue a second rewarding career as a school teacher, coach, golf instructor, and mentor as well as the time to get involved in the Magician Lake Improvement Association where he served as treasurer for many years. Initially becoming involved with Michigan Lake and Stream Associations in 2004 as a regional representative, Dick would eventually become a member of the Board of Directors. Assuming the Presidency of ML&SA in 2014 following the death of our good friend Sue Vomish, Dick's unique "never micromanage" leadership style and ability to work with and inspire others played a major role in ML&SA achieving a period defined by peace, prosperity, growth, and stability.

Thank you Dick! Your love, friendship, fun loving spirit, and immense contributions to our organization and to our lives will not be soon forgotten!

Darlene Morey would like everyone to know that a public "celebration of Dick's life" will be held this spring on an as of yet to be determined date in Dowagiac. We will inform the readers of our monthly newsletter of the exact date, time, and location of the event when it becomes available in the coming weeks.

Figure 1. Photo of a Canada Goose
Photo Credit (copyright RLS)

The Impacts of the Canada Goose *(Branta canadensis)* on Lake Water Quality and Ways to Reduce their Populations in Waterfront Areas

Dr. Jennifer Jermalowicz-Jones, ML&SA Science Advisory Chair & Jordan Bentley, MS

INTRODUCTION: THE BIOLOGY/ECOLOGY OF THE CANADA GOOSE

The Canada Goose (Figure 1) is largest and most widely distributed goose throughout the artic and temperate regions of North America. Historical hunting had reduced migrating geese populations, prompting a massive undertaking to reestablish the species within the United States. In the early 1940's, Canada goose populations were so low that there was some fear of extinction. Efforts by the federal government and many states to provide protection brought the populations back up to a more desirable level in the 1980's. In Michigan, their numbers presently exceed 300,000 (DNR 2018). Its distinctive cackling and V-shaped migrations are known by all as a signal of changing seasons. However, not all Canada geese embark on long distance journeys; some establish resident populations which are the cause of most conflicts today. This resident type has found the perfect environment in the urban open water habitat dotting Michigan's landscape (Figure 2). Modern land-use has encouraged the creation of open spaces, eliminating ground cover for predators and providing well-manicured lawns (Figure 3) adjacent to ponds and lakes in which Canada geese thrive. Extensive food resources, protected nesting areas, and refuge from predators has triggered a population explosion among resident geese.

Both Canada geese groups share the well-known black-headed, white "chinstrap" characteristic, making them difficult to distinguish. Geese are grazing herbivores and prefer grass, aquatic vegetation, seeds, and various grains. Adults can weigh from 10 to 17 pounds, eat up to 4 pounds of grass a day, and return up to 2 pounds of that as feces (Crawford 1999). Canada geese live up to 24 years, keep the same mate for life, and return to nest in the same location, generally during the months of March through May (DNR 2018). Adult geese are particularly aggressive during breeding and nesting seasons; and their behavior can cause problems for lake residents and visitors when they attack and nip (Eccher 2000). As the population rises nationwide and fierce turf wars follow, it's important to remember that Canada geese also provide recreational viewing and hunting opportunities for many. A continued expansion of ideal habitat requirements challenges managers and lake residents to find some level of tolerance. Further complicating management strategies for controlling resident populations, is the fact that Canada geese are managed and protected by the US Fish & Wildlife Service under the Migratory Bird Treaty Act of 1918. This has made it unlawful to kill, hunt, or disturb nests and eggs unless permitted by the Secretary of the Interior. They can be legally hunted during hunting season with the proper license; however, hunting access is often limited due to the proximity to human environments.

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The Impacts of the Canada Goose *(Branta canadensis)*

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Figure 2. Canada Geese feeding in a lakefront park
Photo Credit (copyright RLS)

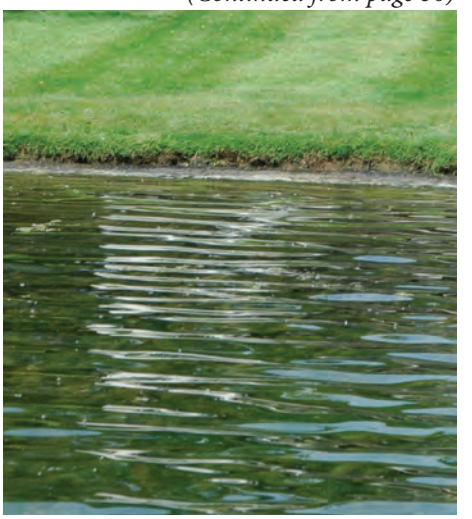


Figure 3. An example of a well-manicured lawn on a lake
Photo Credit (copyright RLS)

WATER QUALITY IMPAIRMENTS FROM CANADA GOOSE DROPPINGS

Many inland lakes in Michigan share an abundance of geese around the shorelines and in local wetlands and parks. In addition to being a nuisance on lawns, excess goose populations on lakes can have impacts on the water quality of the lake. Geese defecate both on land and in the lake and the droppings are high in organic matter and nutrients. These are the same nutrients that accelerate aquatic plant growth and algae blooms. Many of our lakes sustain year around populations of geese. It has been reported that one Canada goose can contribute about a half pound of phosphorus to the lake each year. Therefore if we consider a resident population of twenty geese on your lake, that would be the same as dumping in two fifty pound bags of fertilizer with a N-P-K ratio of 0-10-0 each year (Lake Notes, 1996). This would be the same as a seasonal population of forty geese that spend six months on the lake. It has been estimated that one pound of phosphorus can support about 500 pounds of algae! (Van Buren Conservation District 2012).

A study by Manny et al. (1994) found that the annual contribution of carbon, nitrogen, and phosphorus from migratory waterfowl including Canada geese *(Branta canadensis)* can exceed the external loading contributions on some inland lakes. Thus, an overabundance of geese can lead to increased nutrient loads to lakes and other water bodies. Goose feces contain pathogenic protozoa and bacteria that may emerge has a human health risk to recreational freshwater beach areas invaded by resident geese (Gorham and Lee 2014). Means of direct oral contact include children playing in the beach sand, or individuals exposed while swimming and accidentally ingesting water. Furthermore, nutrients contained in fecal matter may have a significant impact on a lakes trophic status, causing excessive weed growth and algae blooms (Cote et. al. 2010). Also, decomposition of animal waste depletes oxygen levels in shallow, warm waters during the summer months and elevates ammonia levels, producing a toxic environment for fish and other aquatic life.

MANAGEMENT OF THE CANADA GOOSE FOR WATER QUALITY PROTECTION

The long-term protection of our lake water quality requires humane and effective strategies for nutrient reduction of all possible sources which includes local and migratory populations of Canada geese. Fortunately, there are some strategies for reducing geese populations which include but are not limited to the following:

1. Encourage riparians to grow waterfront grass to ≥ 3 inches tall as geese prefer short grass. This does not have to include the entire lakefront lawn but can include a strip or buffer that extends along the shoreline and is at least 5 feet in thickness or width. Eventually tall grasses and sedges will grow at the lake/shoreline interface and will even benefit the shoreline from further erosion—especially if a seawall or rip-rap is not present. If rip-rap is present, the growth of tall grasses along the shoreline is still recommended as geese will likely not venture into a yard with an area of predatory risk.

(Continued on page 33)

ASK THE EXPERTS

If you have a question about water related issues, riparian rights, and/or lakes and streams, etc., let us know by email or snail mail.

Email: swagner@mlswa.org
Mail: The Michigan Riparian
300 N. State St., Suite A,
Stanton, MI 48888

Question: What are macroinvertebrates in lakes?

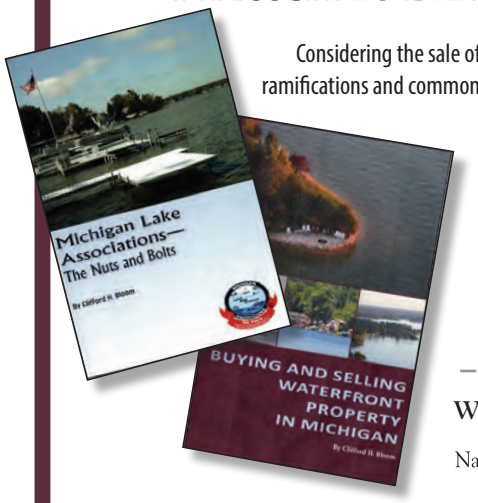
Answer: Macroinvertebrates are aquatic bugs that lack a "backbone" and have many different forms in inland lakes. Such forms can include segmented and non-segmented worms, snails, clams, mites, and larvae of many different taxa. There are benthic macroinvertebrates which live in the lake sediments and those that live near shore or in aquatic vegetation. Many different forms can also be found under rocks, woody debris, and other structures. These aquatic organisms are an important component of the lake food chain and are especially critical for a healthy lake fishery. They differ as water quality indicators as some are found in most aquatic environments and others are found either in high or low water quality. They are therefore indicative of water quality problems and may aid in the detection of water quality impairments so that a process of finding corrective solutions can begin. Many macroinvertebrates prefer lake sediments with low metals, ample dissolved oxygen, and suitable habitat for foraging and reproduction.

By Jennifer L. Jermalowicz-Jones, PhD
ML&SA Science Advisory Chair

* * * * * *

Our experts include our riparian attorney, a biologist, a limnologist, an engineer, a college professor and a state agency official. They look forward to responding to your question.

Two Books Written by Clifford H. Bloom and Published by ML&SA to Benefit Lakefront Property Owners In Michigan!



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Are you and your lakefront neighbors pondering the creation of a lake association? Would you like to improve an existing lake association? Are you wondering about the legal ramifications of forming a lake association in Michigan? If so, this book will provide you with every detail and answer every question you may have regarding lake associations!

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The Impacts of the Canada Goose *(Branta canadensis)*

(Continued from page 31)

2. Plant tall native plants near the shore to encourage a soft shoreline that geese may avoid due to the potential of predators hiding in the tall weeds (Figure 4). If tall grasses are not easily established by not mowing to the waters' edge, then intentional plantings may be needed. In these cases, it is best to call a certified Natural Shoreline Professional and they can be found on the Michigan Natural Shoreline Partnership website at: www.mishorelinepartnership.org. These professionals have unique training on how to introduce native vegetation that will grow in local soils as well as techniques for reducing erosion and enhancing the natural beauty of lake shorelines.

3. Do not feed geese or waterfowl as this encourages their presence. This principle is difficult for the wildlife enthusiasts and avid bird watchers but is really important. Geese have access to a multitude of natural food sources in and around aquatic habitats. They do not need foreign sources of food (such as bread, nuts, etc.) that will enable them to defecate more in nearby lawns.

4. Egg replacement, goose round-up, and nest destruction methods are effective to a degree but require a permit and training from the Michigan Department of Natural Resources (MDNR). Further information on these strategies and additional less invasive strategies can be found on the MDNR website at: www.michigan.gov/dnr. The Humane Society of the United States (U.S.) issued a guidebook in April of 2010 called: "Humanely Resolving Conflicts with Canada Geese: A Guide for Urban and Suburban Property Owners and Communities". This book can be found on their website at: www.humanesociety.org.

5. Coyotes or other intimidating effigies (owls, birds of prey, etc.) can scare geese away from beachfront areas and lawns (Figure 5). These decoys have a realistic appearance and are often to scale and are used in beachfront areas where tall grasses may not be favorable or possible. They can be used each season and are readily available at many home improvement stores. They can also be strategically placed in areas where geese are known to enter lawns.

6. The Audubon Society recommends placement of string 6 inches above the ground followed by another row of string an additional 6 inches above the water if this shoreline

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Figure 4. A natural shoreline on an inland lake
Photo Credit (copyright RLS)

Figure 5. Coyote effigees used to scare geese away from beach areas
Photo Credit (copyright RLS)

Love My Lake

Wouldn't you love to see your lake featured here?
In word and picture, send us your story to swagner@mlswa.org.
(Send pictures in jpeg or 300 dpi.)

The Heart and Science of Lakes

By Joel Van Roekel, Lake Charlevoix Board Member
The Lake Guardian/Spring 2017 newsletters

Eight-year-old Ethan arrived at his grandparents' cottage for the weekend. The ride from downstate was not so long as to be tiring, but just enough for him to feel like he really was away from all that is home. After obligatory hugs, he hauled his duffle to the bedroom, switched to beach clothes, and headed for the water.

The rest of the afternoon was spent playing on the beach, exploring the lake bottom, and swimming out to the raft. Grandma's supper was incredible even though he'd often eaten the same food at his house. The conversations that followed inquired of success at school, best friends, and how he was faring on his baseball team. Shortly after the dishes had been put away, he asked, "Grandpa, can you build a fire in the fireplace?" "Sure," his grandfather said. Sitting there, watching the fire spit and crackle, he said in a soft voice, "This is the best day of my life." As the flames began to wane and embers glowed softly, he said, "Grandpa, can we make s'mores?" His grandfather said, "We sure can." Holding his stick over the coals, the young boy whispered again, "This is the best day of my life."

After the sun had set, the boy, his mother, and grandmother walked lakeside. On the big yard swing, three generations sat quietly, three pairs of eyes gazing over the still water. Suddenly the mood shifted when a dazzling display of fireworks appeared over the lake. When the last rocket had disappeared, the boy's voice was heard to say, "This IS the best day of my life."

It takes quite a story to flip my emotional switch, but this one did. I just sat there for a long time, excavating my own mental archives to the days when my boys (now grown, with families of their own) sat by the fire, toasting marshmallows, watching sparks from the fire lift skyward and disappear into the darkness. Some of the most meaningful conversations we may ever have can happen by the lake, on a dark summer night.

The longer I live on the lake, the more convinced I am that time near the water is both life enhancing and life extending. Dr. Wallace J. Nichols, a research associate at the California Academy of Sciences, supports that contention in his book, Blue Mind. The subtitle of his book says it all, "The Surprising Science That Shows How Being Near, In, On or Under Water Can Make You Happier, Healthier, More Connected, and Better at What You Do." If you are looking for the scientific basis behind all of the enjoyment you get from our lake, this is the book for you.

Nichols draws stark contrasts between urban life and that which is had near water. So many of us are surrounded by lives lived in the "constructed" world. Our houses, cars, offices, roads and sidewalks, and shops bear little resemblance to what is found in nature. Many of us spend our days listening to digital music, watching TV, reading print, surfing the Net, eating prepared and processed foods, and touching things that bear little resemblance to anything related to the outdoors. And while nothing in this list is bad in and of itself, together they have created a divide between us and the "richness of the natural world." Nichols tells us that "study after study shows that the overstressed, over stimulated, urbanized mind can find greater relief in the more subtle perceptions of a park, forest, beach, or a riverbank than it can from almost any kind of human-produced environment."

Photo by Chris Van Roekel

When you lay on the beach, stand on your dock, or sit in the cockpit of your boat, what do you notice? The texture of the water's surface? The current shade of "Charlevoix blue?" The sun's rays bouncing off the lake's ever-changing veneer? As it turns out, we appear to be naturally drawn to water's color, shininess, and motion. There seems to be something about "the way water moves, reflects, glimmers, and glows that mesmerizes us." When you watch the water, the combination of individual waves moving in repetitive patterns produces both novelty and restfulness. So when you gaze over Charlevoix the Beautiful, you can watch those waves for hours, love every second of it, and never lose interest.

So what happens when that view of the lake is so captivating you just have to dive in? The instant you hit the water, whether you're standing, wading, floating, or cruising below the surface,

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you become inundated with a host of sensations. At least part of you is enveloped by the tangible grasp of the water that surrounds you. You immediately react to the difference between the water temperature and that of your body. You quickly appreciate the loss of almost all of your body weight as you bob on the surface. With a few simple strokes, you can choose your direction, position and balance and then change it again almost instantly. You are "in touch with you sensory world" in a way so freeing that there are few other activities on earth to match it. Whether you choose to simply float or stroke out 100 meters, your body begins to produce the chemistry of relaxation and restoration. Olympian Michael Phelps describes it, "I feel most at home in the water. I disappear. That's where I belong."

There are hundreds of additional facts, benefits, and stories waiting for you in the book. If this brief article piqued your interest into the science behind loving your lake, grab a copy of Blue Mind, take it down to the beach, stare out over the water for a while, and have a good read.

Many thanks to Kathy Burt for the "seed" that grew into this story.

NON-CHEMICAL CONTROL OF THE INVASIVE PHRAGMITES AUSTRALIS

(Continued from page 26)

SUMMARY

After one year the continual reduction of Phragmites and the return of native plants were very encouraging. The combination of hand cutting under water and the dry land weed whacker/ hand cutting proved to be the most effective techniques.

A cut cycle of 2-3 times a season was established. The challenge was to find someone willing to do the work. Once that was done and experience was gained, the operation become more efficient and on-site cut time continued to be reduced. Every time a cut took place fewer Phragmites returned and more native plants were present. Another benefit to the cut cycle is that seed pods do not appear on the plant.

After the third year, the main focus became spot checking for Phragmites and regular cut cycles became unnecessary. The one-acre area which was once dominated by Phragmites became dominated by native plants. The important thing to note is that NO CHEMICALS were used in this exercise and Phragmites are under control.

An interesting factor that arose is that this experience made the team more aware of the need to be Phragmites vigilant. Since this initial activity eight years ago a total of 29 Phragmites sites were discovered all around our lake. In 10 of the sites the Phragmites have been eradicated and action is being taken on the remaining 19.

Photo G – Phragmites Infestation Beginning Of Project, July 2009

Photo H – Transition Zone, Cattails On Left, Phragmites On Right, July 2009

Photo I – August 2012, 3rd Year Into Program Shows No Phragmites, Native Plants Returned, No Chemicals Used

Photo J – Continued Success, Native Plants Dominate, No Phragmites, No Chemicals

The Impacts of the Canada Goose *(Branta canadensis)*

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method is used. More information on natural control methods can be found on their website at: www.audubon.org.

7. Visit the following website for more methods and information: http://icwdm.org/handbook/Birds/CanadaGeese/Default.aspx

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Van Buren Conservation District, July 2012, Landscaping for Water Quality.

The Road End Legislation at Six Years Old

By Clifford H. Bloom, Esq.
Bloom Slugget, PC | Grand Rapids, Michigan | www.BloomSluggett.com

For over half a century, the Michigan appellate courts have held that it is generally unlawful to maintain private dockage or to moor, store, anchor or keep a boat or watercraft overnight, permanently or seasonally at a public road or private road end that terminates at a lake. See *Jacobs v Lyon Twp* (after remand), 199 Mich App 667; 502 NW2d 382 (1993); *Higgins Lake Property Owners Assn v Gerrish Twp*, 255 Mich App 83; 662 NW2d 387 (2003); Delaney v Pond, 350 Mich 685 (1957) and *Dyball v Lennox*, 260 Mich App 698 (2003). Unfortunately, however, prior to 2012, if the local municipality did not have an ordinance in place governing such dockage and boat moorage at public road ends and someone persisted in maintaining a private dock or boats unlawfully at a road end, nearby or adjacent riparian property owners had to pursue a private lawsuit. Such lawsuits often prove expensive, time-consuming and contentious.

Effective in 2012, Michigan adopted a new state law that prohibits private docks at public road ends at lakes, as well as the storage, docking, mooring or keeping of a boat or watercraft at a public road end during the hours from midnight through sunrise. That statute is MCL 324.30111b. Improperly maintaining dockage or boat moorage at a private road end still remains a matter subject to private litigation (unless a local municipality has an ordinance regulating private road ends at lakes).

How has MCL 324.30111b fared in the approximately six years that it has been in effect?[1] In general, quite well. Most citizens comply with the statute. Furthermore, most local municipalities (i.e. cities, villages and townships) and county road commissions with public road ends at lakes in their jurisdiction have generally respected the statute and attempted to comply with it. Unfortunately, however, there are a few municipalities and municipal officials who do not know about the statute or even attempt to undermine it.

What are some of the ways that some municipal officials or others have tried to thwart MCL 324.30111b? First, there is sometimes a question about whether a given piece of property is a public road end or, if it clearly is a public road, whether it is "open to the public" for purposes of the statute. In order to address these issues, the plat itself or other documents creating the road or past highway-by-user activities will have to be examined closely. Second, the statute does allow one public dock for "day use only"; that is, a municipal dock can be maintained so long as no boats or watercraft are kept at the dock or public road end during the hours from midnight through 6 a.m. Some municipalities are allowing private individuals to install their own docks on public road ends. That is likely a violation of MCL 324.30111b. Furthermore, it is generally not sound municipal practice. Why? There are three general reasons, as follows:

A. The Michigan appellate courts have implied that a public dock at a public road end must be installed, maintained and owned by the local municipality, not by private interests. That appears to be true even if a private dock is made available for use by members of the general public.

B. Allowing a private dock on a public road end presents liability potential to the municipality. Although requiring the person who puts in the private dock to provide liability insurance to cover the municipality helps, the insurance may not be enough, the insurance policy might lapse and similar insurance issues may arise.

C. Finally, allowing the placement of a dock at a public road end will implicitly invite the dockage of boats overnight, which would violate the statute. Policing of road ends is more difficult if private docks are allowed or ever encouraged.

It should always be kept in mind that a public road end is public property. Private individuals should not be allowed to monopolize such a public property or even have some type of "grandparent" or priority rights over other members of the public. For municipalities that allow the installation of a private dock on a public road end, ask a local municipal official whether it would be permissible to store your RV seasonally at the municipal offices or install your own holiday lights in front of city hall. Of course, the answer would be a resounding **NO!!!.** It is difficult to comprehend why the municipal official's response should be any different for a private dock at a public road end at a lake.

[1] *This article supplements a lake road end discussion by Paul J. Sniadecki in the Winter 2018 issue of The Michigan Riparian magazine.*

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