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Designed and published
for lakefront property
owners and enthusiasts.



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THE MICHIGAN PIPARIAN

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FROM THE PUBLISHER



Season OF CHANGE

Several of the articles in our fall issue share the theme, "Season of Change." The rich history of Long Lake in Iosco County is inspiring and the changes the lake has seen over the years is a testament to positive reaction. It is a reminder that there is not much we can't achieve when we share a common goal and work together. The Long Lake story is one of overcoming hardships and finding success that play out yet today. As the story goes, "narratives detail the economic and social impact that lumbering, recreation, and tourism has had on the growth and development of Long Lake and the village, and provide a vivid picture of the people who trod the land and shaped its future."

Michigan Lakes and Streams Associations has already changed its name to Michigan Lake Stewardship Associations. You will note the name change and new logo throughout this issue and future issues of the Riparian.

The MLSA president's position that was vacated by our beloved Dick Morey who passed away last January has been filled by Mike Gallagher and the vice president's role by John Wilks. See page 14 for more. MLSA is excited about the new leadership and the direction they will take the organization. Scott Brown is retiring after serving over 13 years as the Executive Director for MLSA. His passion for protecting our inland lakes has been the cornerstone of MLSA. The search is on for an executive director who shares that same passion.

Now brace yourselves...there will be a change in subscription rates for lake associations. Try as we might, we cannot think of one thing that has not increased in cost for goods or services. Not gas, not bread, not education, not even a pair of socks. Printing, postage and distribution have all had a significant price increase annually for the past eight years. To continue publishing *The Michigan Riparian*, we are forced to up the price by 50 cents per issue (\$2 per year) for lake associations. The increase allows us to continue providing subscribers with a great resource and a top-notch publication. For \$3.50 an issue (\$14.00 annually), we believe it is well worth the investment. Just look at some of the great topics in this issue.

Cliff Bloom weighs in on the hot subject of wake boats on page 33 and his column, Attorney Writes, explains the steps involved in vacating roads and easements near lakes (page 17). Good lake management practices at the local level and the long-term effects on those living on lakes is covered by Dr. Jennifer J. Jones on page 19. Boat washes are catching on. Read more about it on page 29. This issue is rich in a variety of topics--an interesting school project on page 26, best practices for lake stewardship on page 22 and a special goodbye letter from our retiring Executive Director, Scott Brown.

Please continue to share your changes, celebrations and stories about your lake or lake association. We love to hear from you.

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LONG LAKE

HISTORY OF LONG LAKE

The history of Long Lake is sprinkled with rich stories and experiences of Native Americans, pioneers, subsistence farmers, lumbermen, religious enthusiasts, merchants, civic leaders, mobsters, weekenders, seasonal vacationers and year-round retirees. Written documents, photographs, and narratives detail the economic and social impact that lumbering, recreation, and tourism has had on the growth and development of Long Lake and the village, and provide a vivid picture of the people who trod the land and shaped its future.



Sodney Mucka Poosh, Chief of the Chippewa Tribe living around Dease and Long Lake.

(Continued on page 6)

LONG LAKE



Thayer lumber camp
Photo Credit: Jim LaBerge

Two hundred years ago, a pristine forest of white pine, red pine, cedar, oak, ash, maple, and beech covered the land now known as Iosco County. Fish were plentiful and wild game was abundant.

In the 1800's, as the national demand for wood grew, the commercial lumbering industry boomed in northern Michigan and pioneering families from down state, Ohio, New York, New England, and Canada came to the area to earn a living, put down roots, and rear families.

A group of families, including the Barbers, Thayers, LaBerges, Shorts, Pratts, and Yosts, settled around Dease lakes in the 1880's and engaged in lumbering and subsistence type farming.

George Thayer and his son-in-law, Louis LaBerge, eventually moved their families to the west end of Long Lake

and began settling the land. Thayer and LaBerge built small lumber camps and sawmills at different locations on the lake, including one east of the point on Martha Drive.

The early settlers in the region were hard workers. For lumbermen, the days were long and the work was strenuous and dangerous. In late winter 1907, George Thayer took one last sleigh load of logs across the frozen lake from the mill on Holbeck's Point (Guiney's Point) to the railroad in Long Lake. As he urged his team forward he heard a loud "boom" and a "cracking" sound. The runners of the sleigh had crashed through the ice.

The horses leaped and bucked, straining to pull the heavily loaded sleigh forward, but it was too much for the horses. Thayer leaped from the sleigh onto the ice, turning in time

(Continued from page 6)

to watch it slip from sight, dragging down the team, chained to their harnesses, after it. In seconds, all was gone and only a gaping hole in the ice remained.

Hardships were common in those early days, and in order to receive trained medical care, families had to travel quite a distance.

Louis LaBerge, a blacksmith by trade, built a blacksmith shop and home at the intersection of Front Street and Holbeck, and later built a home on Main and Front Streets, where Annie's Restaurant now stands. A leader in the community, he served as township treasurer, Justice of the Peace, road commissioner, school board member and postmaster. Louis was also a builder and constructed numerous homes and cottages around the lake.



Horse drawn wagon.

Photo Credit: Jim LaBerge



Railroad

Photo Credit: Jim LaBerge

In 1893 the Detroit & Mackinac Railroad built a line to the village. During the winter months hundreds of tons of ice were cut from the lake and transported south by rail.

A holding pen for cattle waiting to be shipped by rail downstate was constructed at the end of the lake, in the area where the bar is located.

Passenger freight train service provided families with transportation from National City to Hale. The railroad eventually opened a spur extending the lumbering train route from Hale through Long Lake, South Branch, and Lupton, then west toward Maltby Hills with its terminus at Rose City. This extension made it more attractive for early families to venture north and settle along the route.

At the turn of the twentieth century, as people bought up tax property, construction boomed and the community became active.

Henry Ballard established the first store northeast of the Long Lake Bar on Kokosing Road. A Methodist Church was constructed, and in 1902 the village was granted its first post office. The town was designated "Ellake." The name was confusing, since the settlement and train station were known as Long Lake. As postmaster, Louis LaBerge was credited with changing the village's postal designation from Ellake to Long Lake.

The first school, an old log cabin, was built in 1903. The D & M depot (Sixty Lakes Club) was constructed on Main Street in 1905, and in 1907, Frank Eymer built a large general store on Front Street across from the post office. In those days the local pool hall served as the popular gathering place for menfolk in the surrounding territory.

During the lumbering boom, the Penoyer Lumber Co. wanted to move logs more easily from Long Lake to Loon Lake, a drop of 56 feet, so workers began cutting a swath through the high bank at the southeast end of the lake (the present-day easement on Lakeside). Fortunately, they were stopped by the State before its completion, or Long Lake would have most certainly been drained.

In 1906 the Thompson acreage on the northwest side of the lake reverted to the State for nonpayment of taxes, and The Christian Outing Grounds Association with headquarters in Toledo, Ohio, purchased 638 lots of Thompson land for 75 cents an acre. The Association then created a unique inland lake development that included a spacious summer resort, a large number of tent-top cottages, and an assembly area on the grounds. Their aim was to bring at least 1,000 Ohio families to the area each summer for religious instruction and recreational enjoyment.

LONG LAKE

The Resort was a three story design with a block basement and two shingled upper floors. The building measured 116 by 40 feet. The basement contained the dining hall, kitchen and pantry. The first floor held the 34 by 64 foot main lobby, a ladies parlor, the association offices, four sleeping rooms and a large banquet hall. The upper rooms were used as sleeping rooms.

Development of The Christian Outing Grounds Association in the Kokosing Subdivision boosted the economic business in Long Lake and Hale, and COGA's pioneering effort in the resort field was credited with the eventual development of year-round homes around the lake. Stores bustled with activity as a result of the influx of Ohio residents, and many Long Lake and Hale residents made a living by building and doing seasonal work for summer visitors. The Kokosing Hotel prospered for about ten years, and when the Association eventually collapsed, Ohio residents bought the lots for \$100 each, and John Mortenson took over operations of the resort.

In 1909 the Huron National Forest was established by the government to conserve the rapidly disappearing pine forests. As the timbering industry waned, recreation and tourism became the important factors in developing the area. In the early 1930's, as a result of the stock market crash and after years of depression, revenue from tourism dropped and building and growth in the area stagnated.

Streeter's store and post office at the corner of Front and Lake Streets became the center of activity. Another blow to the area's economy occurred in 1939 when the Kokosing Resort Hotel burned to the ground.



*Front of the Kokosing Resort Hotel
(facing the large section of the lake)*
Photo Credit: Jerry and Dora Mae John

In 1942 Harry Carter, Enos LaBerge, Florence Hicks and John Mortenson formed the Sixty Lakes Tourist Association for the betterment and improvement of the local lake area. Their aim was to address the issues of fire protection, fish planting and road improvement. The first meeting was held in the Seventh Day Adventist Church (Nonnie's Long Lake Emporium), and later meetings were held in members' homes. Property was bought in 1943, and a clubhouse was built in 1946. The club sponsored card parties, bingo, rummage and bake sales, banquets, and dances. Years later the Sixty Lakes Club utilized the abandoned D & M depot for its headquarters.



Kokosing Resort Launch
Photo Credit: Debby Stoerker-Waltz



Original 60 Lakes Club Ladies Meeting
Photo Credit: Jim LaBerge

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People living in the area in the 1940's still relied directly or indirectly on resort and tourist trade to make a living, and Long Lake became a bustling community once again as the population swelled during the summer months.

During the post war 1950's, Irene (Jackie) Dunham & Hilda (Jake) Jacobs built the J & J Market across from the Long Lake Bar. They sold groceries, beer, wine and Gulf gas. Camp Grand Resort and Restaurant became a busy place for tourists to frequent.

On the weekends a favorite place for the locals to patronize was the Graceland Ballroom, a famous saloon located at the corner of Rose City Road and Lupton Road - six miles west of Long Lake. It was owned by members of the Purple Gang from Detroit. Mobsters from Chicago, including Al Capone, frequented the area, partying in Lupton and at Graceland. The saloon featured big name bands such as Guy Lombardo, Fred Waring and Artie Shaw. Numbered squares were placed on the dance floor and on some Saturday nights the band would suddenly stop playing music and call out a number. The person standing on the numbered square would receive a prize - sometimes a diamond ring or watch. Nervous about rival gangs showing up, armed men guarded the entrance and machine gun turrets were located on the balcony.

In the early 1950's, summer tourism grew and so did the need for rentals. Long Lake village boasted five groups of rental cabins owned by the Zavitz, Fox, LaBerge, Kruse, and Dyer families. Vacationers to the area could buy minnows and rent boats from the Dyers. John Mortenson, the Justice of the Peace and a real estate agent, rented cottages at the Kokosing Resort on the old site of the Kokosing Hotel. Further east on the lake were four cabin resorts owned by the Oaks, Hicks, Wardens and Jacks.



Long Lake Bar
Photo Credit: Tim Prichard



Neff's Store (Formerly Streeters)
Moved from Front & Lake St. to LL Road

Neff's Store
Photo Credit: Al Laberge



(Continued on page 10)

LONG LAKE

With the growth of the auto industry and an increase in discretionary funds, people from Flint, Bay City, Saginaw and the suburbs of Detroit flocked north to relax and enjoy the simple pleasures the north woods had to offer. They purchased small cabins on the lake and cleared undergrowth thick with poison ivy from the land. They fished from docks, canoes, and in small wooden fishing boats with 5 horsepower engines. Families enjoyed swimming, spending quiet time by the fireside, walking through the woods collecting berries and morel mushrooms, and communing with nature.

In the late 1950's and early 1960's, the roads north improved greatly and the number of families driving "up north" for the weekends grew. Families spent more and more time at the cottage. Many fathers commuted on the weekends, leaving mothers and children at the lake for the summer. Although families were still seeking refuge from the hassle of urban life, they desired more modern conveniences. Basic party-line phone service was established and television antennas pulled in reception on several channels. Recreational activities flourished. Small wooden fishing boats gave way to 14 and 16 foot fiberglass boats with 35, 50, and 75 horsepower Evinrude, Johnson and Mercury motors. Gas sold at 30 cents a gallon and water skiing, surf boarding, and being towed on inflatable air mattresses and on inner tubes were popular water sports. It was not uncommon for a family to go through six 6-gallon gas tanks a weekend.

The late 1960's were carefree days for young people, with endless hours of watersports, marathon beach volleyball games, and sun tanning with a mixture of baby oil and iodine to achieve chestnut brown tans. Few people worried about the long-term effects of the sun. The public beach became a hotbed of activity, uniting lake residents and town folk. The dirt roads on Lakeside Boulevard and Kokosing Road that for years had been regularly scraped and oiled to reduce the dust were finally widened and blacktopped.



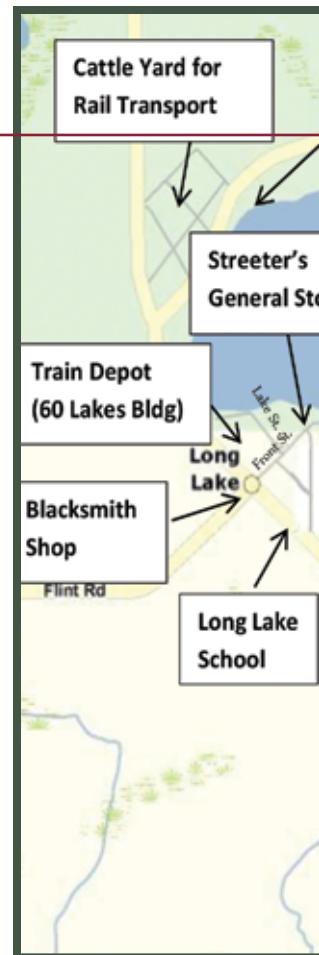
Kids on Sunfish
Mid 1960's
Photo Credit:
Jim LaBerge

In the 1960's and 1970's, lake property owners met several times each summer at the Sixty Lakes Club to discuss common issues. In 1978 the Long Lake Property Owners Association (LLPOA) was incorporated as a non-profit organization for the purpose of co-operating with and respecting the rights of all property owners; securing, maintaining and improving lake conditions, and assisting and co-operating with all existing subdivisions, and all State and Government agencies for the benefit of all. LLPOA addressed issues of securing the dam and maintaining lake levels, stocking fish, and monitoring water quality. As a result of the Association's involvement in seasonal water level issues, the Circuit Court appointed the Iosco County Drain Commissioner to maintain a court-ordered lake level. This included constructing and maintaining the dam in the large section of the lake. Under the Inland Lake Act, a special assessment district was established.

Members of the Association began attending lake and environmental conferences and LLPOA joined the Michigan Lake and Stream Associations.

As a group, property owners became more aware of environmental issues such as aquatic plant control, water quality, beach improvement, lake level control, and fishing; as well as laws regarding riparian rights. Lake resident and activist, Pearl Bonnell, served on the board of ML&SA and was its Director of Operations. For decades Pearl and her husband Bruce provided the membership with invaluable insight into best lake practices.

In the 1970's and 1980's, many cottages were handed-down or sold to family members. Small cabins were renovated and expanded. A better highway infrastructure was created that bolstered the growth of the region, while negatively affecting the growth of Long Lake village. Young people whose families had been merchants in the village found work downstate and many family businesses closed from lack of family interest or lack of business. The LaBerge family sold their hardware store and marina to Rich and Sue McTaggert, who eventually sold it to Al Call, present owner of the Long Lake Marina.



HISTORIC SITES



(Continued from page 10)

Neff's store burned and Van Patten's (across from the Long Lake Marine) became a storage area for the marina.

The dump on Kokosing Road just east of North Campbell was finally closed and families hauled their trash to the dump on Liberty Road near South Branch, where bears were frequently sighted; until it too was closed, and facilities in Hale were used.

In the 1980's and 1990's, there was another significant remodeling phase on the lake – the building of year-round residences. Sea walls were constructed and boat lifts with canopies dotted the water. PWC's became popular and ski boats were outfitted with powerful inboard/outboard engines. Tubing became a favorite water diversion in the summer and ice fishing, cross country skiing and snowmobiling were enjoyed in the winter. LLPOA continued to monitor water quality on a monthly basis, promoted fish stocking, advocated for beach improvement, investigated the invasive zebra mussel problem, discussed the appropriate use of road-ends, and dealt with the horrendous Gypsy moth dilemma.

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LONG LAKE



*Run-Like-Hale – 10 K Event
Fundraiser for the Leukemia and Lymphoma Society
Photo Credit: Maureen Hearn*



*June 28, 2014 LLPOA Meeting at the Township Hall
Photo Credit: Jim LaBerge*

At the turn of the twenty-first century, recreation and tourism drove the northern economy. There was a surge in the use of PWC's. The thrill of skiing was replaced by the excitement of riding tubes and wake-boards. Pontoon boats appeared at many docksides, often replacing the family speedboat. With the growth of satellite dishes, cable television connections, cellular towers and Internet access, communications improved dramatically on the lake.

When the Sixty Lakes Club building was closed, Carol Wilson and Tim Prichard graciously allowed the Association to hold monthly meetings at the Long Lake Bar

LLPOA focused on the needs and concerns of lake property owners by monitoring water quality, addressing the problems of invasive species and issues with water vehicles and PWC's,

protecting the loons, and dealing with the relocation of geese. Members engaged in clean-up efforts and beautification around the lake, in the village and in Hale. The Association purchased flags for the community, mowed common areas, worked effectively with the township on numerous issues, sponsored golf outings, youth fishing events, boating safety classes, and the 4th of July Boat Parade. It also provided property owners with ongoing communication through the website, newsletter, and on Facebook. LLPOA sponsored charitable fundraising events like Run-Like-Hale 10K to raise money for the Leukemia and Lymphoma Society, planted tens of thousands of fish through the Walleyes for Iosco County organization, encouraged new technology and supported the gas pipeline.

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*Chemicals Applied Under the Auspices of Restorative Lake Sciences
Photo Credit: Jim LaBerge*

Unfortunately, the viability of the lake was being threatened by an invasion - a rapidly spreading invasive species known as Eurasian Water Milfoil (EWM). Milfoil threatened not only the quality of life on the lake for everyone wanting to swim or use water craft, but it also affected the property values of every homeowner. The lake was "being clogged to death."

LLPOA first attempted to control the EWM problem with the least environmentally harmful solution – the introduction of weevils, the only known predator of Eurasian milfoil. A vote was taken and a special tax district was established to pay for the treatment. Property owners were concerned that the treatment was not yielding the hoped for results, and became more vocal at meetings. Membership in LLPOA increased and the Association outgrew the facilities at the bar and moved its monthly summertime meetings to the Township Hall in Hale.

After two unsuccessful years of weevil treatments and with greater acreage being consumed by EWM and boaters unable to navigate portions of the lake, a committee was formed to research options and make recommendations. As a result of the committee's recommendations, LLPOA members voted to hire Jennifer Jermalowicz-Jones, a PhD candidate and Water Resources Director for Restorative Lake Sciences. Another special tax district was established, and in 2013 with DEQ and DNR approval, the first chemical treatments were applied.



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(Continued on page 24)



Photo Credit: Maureen Hearn

Time to Say Good-Bye and Thank You

By Scott Brown
MLSA Executive Director

After thirteen years of pro-active involvement in MLSA, and nearly ten years while serving as Executive Director of this unique inland lakes focused organization, I have decided that that the time has arrived for me to step aside in order to "slow down" and to afford the MLSA Board of Directors the opportunity to develop new leaders. For me, the loud and clear message to begin acting more like a retired person came on the late evening of Tuesday, July 10th as a persistent dull pain in my upper chest pointed to the need for quadruple coronary artery by-pass surgery which occurred six days later as part of an "adventurous" eleven day stay at Saint Joseph Mercy Hospital in Ann Arbor. Having never spent a single night in the hospital since leaving the Scott Air Force Base (Illinois) Hospital as a baby on February 5, 1952, my wonderful experience of being tended to by the outstanding medical professionals at St. Joseph Hospital was a rewarding

and thought provoking experience that I would prefer not to repeat any time soon. On about the fourth day of my ultimately sleepless hospital stay, I came to the conclusion that modifying my stressful "heart attack producing" lifestyle to now include some time for rest and relaxation might not be a bad idea after all!

Like most endeavors in life that involve hard work, commitment, and dedication of substantial time and effort, I perceive that the past ten years have "flown by" at the proverbial speed of light. I have been blessed by a series of rewarding careers that all seem to have passed quickly by, including twenty four years at Ford Motor Company, and twenty four years with the Air Force Reserve of travelling to bases around the world in support of active duty missions. The opportunity to serve as Executive Director of Michigan Lake and Stream Associations, now known as Michigan Lake Stewardship



Associations, has been one the most challenging and rewarding experiences of my life. As a lake lover, there could have been no greater calling than this decade long opportunity to share my passion for preserving and protecting Michigan's extraordinary freshwater gems. Having met hundreds of people over the course of the past ten years who share my passion for preserving the quality of our vast treasure of inland lakes, I come away from this unique experience with a great sense of hope and optimism, and am eternally grateful to all of the wonderful people I have had an opportunity to work with over the past decade. Good-bye and good luck! ☺

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A photograph of a woman with blonde hair, wearing a white patterned top, sitting on the edge of a boat's white vinyl seat. She is smiling and looking towards the camera. The background shows the water and a distant shoreline.

FALL EVENTS IN MICHIGAN



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Rate Change

The Michigan Riparian magazine is announcing a new rate change for all lake association subscriptions. This new rate will take place with your next lake association subscription order/renewal.

The Michigan Riparian has not had a rate increase for lake association subscriptions in over 8 years.

Due to the increased costs for postage, printing and distribution over the last several years, we are forced to raise the rate to \$14.00 per year. We hope you understand and will continue to enjoy a magazine that educates, provides insight, keeps you informed on current events and provides valuable information that benefits your lake association.

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- Lake and watershed management plans
- Legal lake level studies and proceedings
- Limnological evaluations and diagnostic-feasibility studies
- Online information and outreach
- Project organization and financing assistance
- Water quality monitoring

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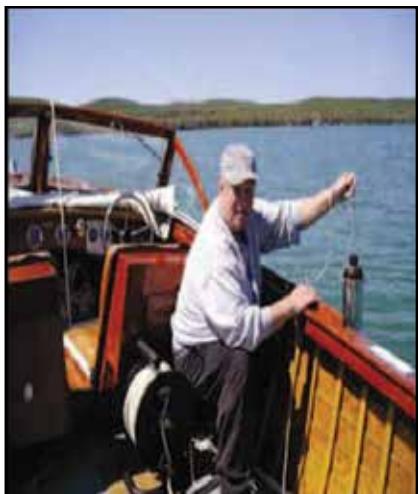
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**Michigan Clean
Water Corps**

MiCorps
Monitoring Michigan's Water Quality

Michigan's Inland Lakes, Ours to Protect



- Providing baseline information and document trends in water quality for individual lakes.
- Educating lake residents, users and interested citizens in the collection of water quality data, lake ecology and lake management practices.
- Building a constituency of citizens to practice sound lake management at the local level and foster public support for lake quality protection.
- Providing a cost effective process for the MDEQ to increase baseline data for lakes state-wide.

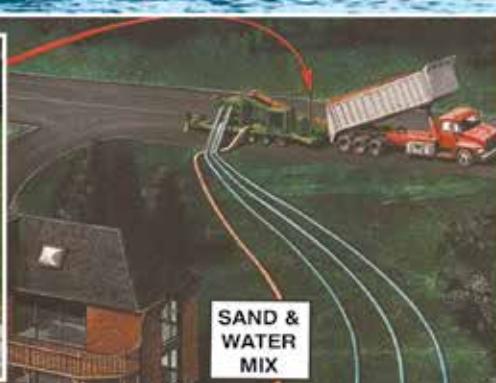
**Registration for the 2019 monitoring season
will begin on October 1, 2019.**

**Contact Jean Roth, Program Administrator, at
989-257-3715 or jroth@mlswa.org**

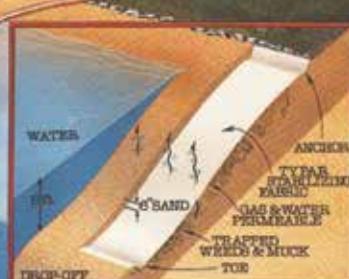
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Are All Easements and Roads at or Near Lakes Forever?

Many riparians on inland lakes throughout Michigan, as well as the Great Lakes, have unused or dormant road rights-of-way, easements, parks and other common areas located on their lakefront property, adjoining their land or nearby. And, quite often, those common areas have long been unused and are dormant. In fact, in many cases, people in the neighborhood are unaware of the existence of such road rights-of-way, easements, parks and similar joint use properties. Riparian landowners frequently ask me how such roads, parks, easements, etc. can be permanently extinguished. Unfortunately, such extinguishment can often be expensive and time-consuming, if not impossible. Furthermore, the method of extinguishment depends upon the type of common property involved.

In almost all cases, road rights-of-way, dedicated parks, dedicated walkways and similar ways are simply easements. Typically, riparian land owners adjoining those joint-use properties own to the center of (or all the way through) the easements. Accordingly, if the road right-of-way, park, walkway or other joint use property is extinguished or vacated, the owners of one or more adjoining riparian properties typically have their title cleared and thereafter own their properties free and clear of the easement involved.

Unfortunately, there is typically a great deal of disinformation spread by laypeople about how to extinguish or vacate road rights-of-way, dedicated parks, easements and similar joint-use properties. Almost never can those easements be extinguished or vacated by the local municipality (the city, village or township) or the county road commission simply passing a resolution or granting a quitclaim deed to the adjoining riparian property owners. That is almost never effective to vacate or extinguish the joint-use easements involved.

In most cases, a road, park, walkway, alley or easement in a plat can only be fully extinguished or vacated pursuant to a county circuit court lawsuit under MCL 560.221 *et seq.* However, such lawsuits tend to be complex, time-consuming and expensive. The property owner who desires to vacate a dedicated joint-use easement must file a formal lawsuit and join many parties as defendants (including, but not limited to, either the owners of all properties within the plat or within 300 feet of the joint-use property, the county road commission, the Michigan Department of Natural Resources, the local municipality, all utility companies and

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



potentially others). If anyone raises a reasonable objection to the proposed plat revision or vacation, the court normally will deny the vacation request. Furthermore, even if there are no reasonable objections, the county circuit court judge still has the discretion to deny a vacation. Anyone who tells you that a dedicated joint-use property can simply be extinguished via a quitclaim deed or resolution from the local municipality is just plain wrong. If a plat vacation or revision lawsuit is successful, the plaintiffs in the lawsuit will have to do a replat of the area affected by utilizing a professional surveyor, which can be pricey.

If a road is created via a deed or other recorded document or pursuant to the highway-by-user statute (MCL 221.20), the vacation can only occur via action of the county road commission involved. If a public road in a township is adjacent to or touches a body of water, the vacation cannot occur unless and until the road is first offered to the local township and then to the State of Michigan.

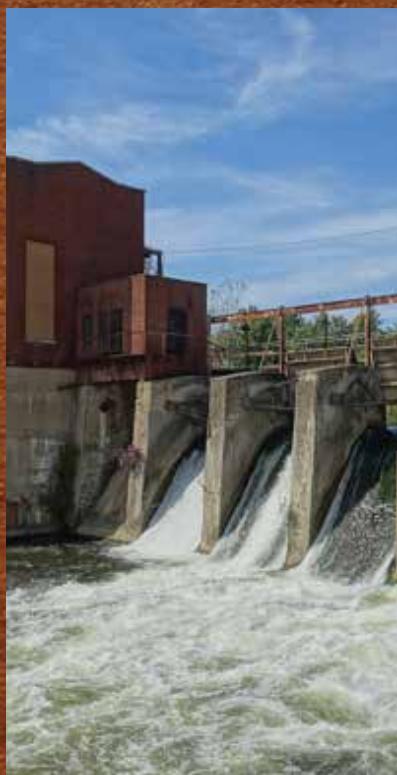
There is one other potential way that a road, park, walkway, alley or other common or joint-use easement can be extinguished – via adverse possession. That can be effectuated without a formal plat vacation or revision lawsuit. However, it can only potentially work for private roads, easements, parks, walkways or other joint-use easements. Under Michigan law, adverse possession cannot be used against a government property such as a public road, park, walkway or alley. See MCL 600.5821. However, with a private road, park, walkway, alley or other joint-use easement, those easements can potentially be extinguished if an adjoining riparian blocks and takes exclusive possession and control of such easement area for 15 years or longer. In order to extinguish a private easement by adverse possession, the blockage, use and control must be absolute, such as a building or structure on an easement, fully blocking an easement by a substantial fence or other obstacle that makes it clear that the adjoining riparian property owners are asserting dominion and control over the entire easement.

Interestingly, there are a number of riparian property owners throughout Michigan who believe that a joint-use easement on or adjacent to their property was extinguished long ago by a quitclaim deed or other means which was ineffective. In many of those cases, the joint-use easement remains valid even though it is dormant. ☺

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



The Old Pucker Street Hydroelectric Dam in Niles, Michigan

Question: Can a lake association or the local government raise or lower the level of our lake via a dam, impoundment or pump?

Answer: In general, no, not without a court order. MCL 324.30701 et seq. provides a procedure whereby a county circuit court can set lake levels for an inland lake in Michigan. The process (via a lawsuit) is initiated by either citizen petition or action by the county board of commissioners. The circuit court judge decides whether or not to set a lake level or levels, and if so, at what elevation(s). Typically, the court holds at least one public hearing so that all of the affected parties can be heard.

Attempting to maintain, raise or lower a lake level without a court order presents significant liability potential to the local government or persons who attempt to manipulate the water level. If the level is raised too high without a court order, the owners of properties subject to flooding could potentially have a damages claim against the municipality or individuals who raised the lake level. Conversely, if the lake level is maintained too low artificially, a similar damages lawsuit could be pursued based on wells going dry, decreased recreational opportunities and similar claims. There are a few situations, however, where a local municipality or a lake association could lawfully maintain lake levels without a court order. That would be true if a municipality owns and controls the entire lake or a lake association created by deed restriction is expressly given the authority to maintain the lake level.

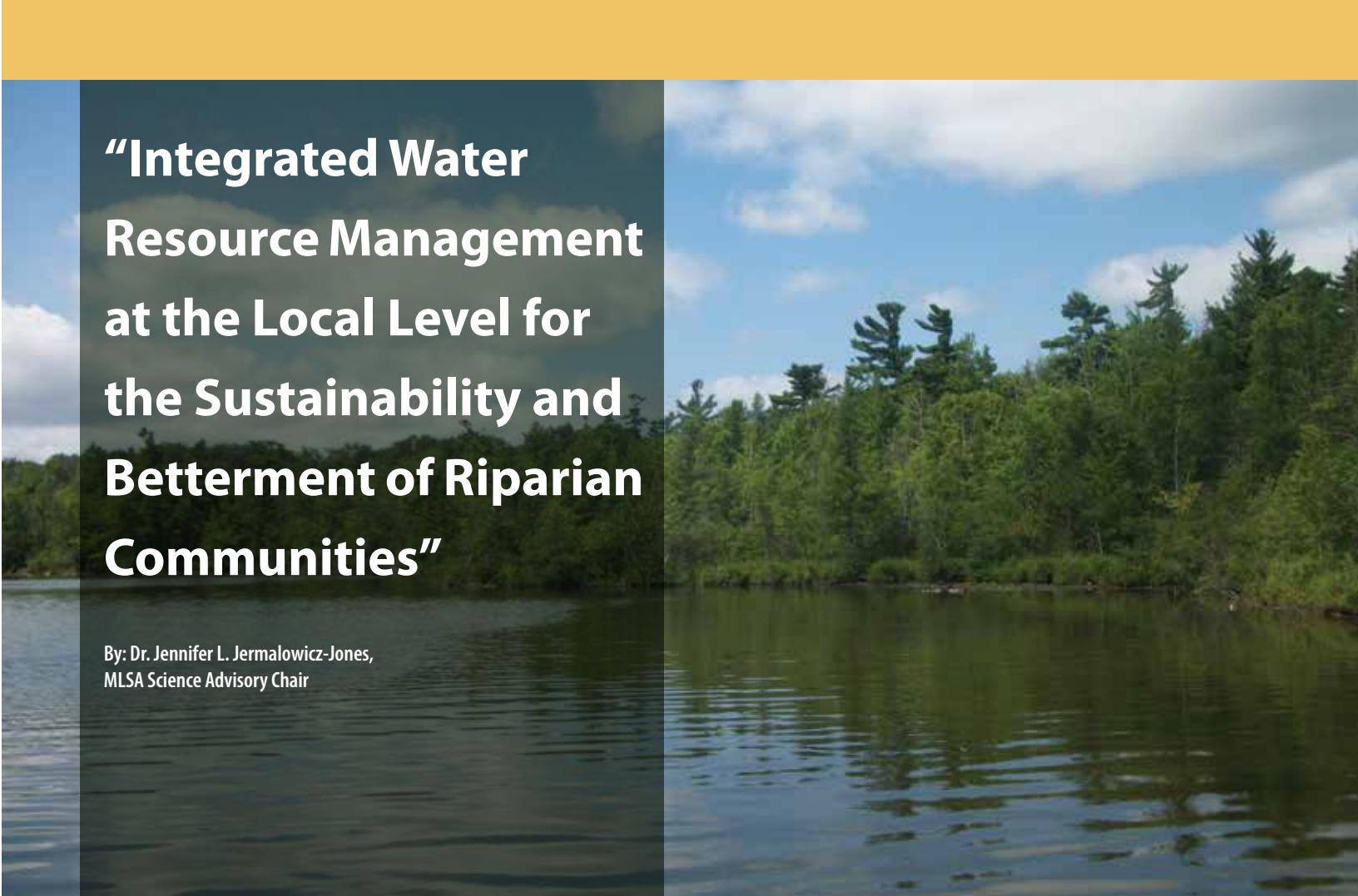
Over the years, court lake level orders have become more sophisticated. Lake levels set by court order 40 or 50 years ago typically have only one lake level set year round, which often proves ineffective. Today, courts will often set two lake levels – one for the summer season and one for the winter. Even for those lake levels, a court will typically specify a range of elevations. In most cases, the court orders the county drain commissioner to operate the dam, impoundment or augmentation well involved. A person who wrongfully interferes with the apparatus maintaining a lake level set by court order could be held in contempt of court, face criminal penalties and could also be liable for damages. The court normally also imposes a special assessment on the benefitted properties to fund the costs of controlling lake levels.

Of course, setting lake levels can often be challenging for the court involved. Some people prefer high lake levels (including boaters and farmers), while other groups prefer lower lake levels (such as riparian property owners whose properties or basements are potentially subject to flooding). For more information regarding this matter, please see the earlier article by Cliff Bloom in the fall 2000 issue of *The Michigan Riparian* magazine.

Clifford H. Bloom, Esq.
Bloom Sluggett, PC, Grand Rapids, Michigan

* * * * *

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.



"Integrated Water Resource Management at the Local Level for the Sustainability and Betterment of Riparian Communities"

By: Dr. Jennifer L. Jermalowicz-Jones,
MLSA Science Advisory Chair

INTRODUCTION:

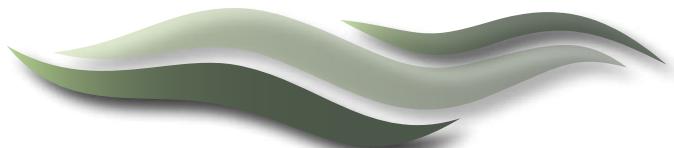
Betterment may be defined as an improvement or increased value of a property because of improvements beyond mere repairs or as an improvement that adds to the value of a property or facility (Webster 1989). It is critical that the creation of metrics for the determination of betterment be developed in an effort to achieve sustainable interactions between citizens and the resources that are exploited for enjoyment and sustenance. Events such as progress have been at the forefront of discussions regarding betterment and sustainability because progress is often associated with economic growth, but may proceed to levels that are not suitable to sustainability or betterment, especially when applied to ecological or natural systems (Norgaard, 1994). Furthermore, it is also critical that progress be monitored to measure its impact on resources that are vulnerable to degradation or depletion and rendered unsustainable.

The development of riparian communities around inland lakes throughout the United States serves as an excellent model of progress and betterment for the people but not necessarily a favorable model for sustainability or betterment of the lake ecosystems. First, the major threats to inland lakes, including developmental pressures, non-point source pollution and water quality degradation, and invasive species

must be defined. Additionally, the property values associated with lakeshore residences have been shown to significantly decline with increased impairments to the lakes (Boyle et al., 1998). Lower property values also have a negative impact on the revenues of the municipality which consequently leads to declines in the amount or integrity of the services offered to the citizens and ultimately a decline in the betterment of the community.

Attainment of betterment by a local populous that resides on inland lakes should necessarily strive to complement both the path to progress and well-being and betterment of the water resource itself in an attempt to provide a long-term, sustainable mutualism between the community and the lake. Although the perspectives or world views regarding the concept of betterment are likely to differ among the population, the general agreement is that a resource provides a state of well-being or value to the individuals and allows

(Continued on page 20)



"Integrated Water Resource Management at the Local Level for the Sustainability and Betterment of Riparian Communities"

(Continued from page 19)

for an increase in the quality of life. Thus, there is a strong inter-dependency of both subjects for the preservation of a sensitive water resource to continually yield the many recreational and socio-economic attributes that are inherent with its presence. Such a feat may be accomplished through the development of a local water resource framework which includes riparians, local stakeholders, and municipality officials, along with careful analysis of the water resource condition and vulnerabilities. Addition of this approach to the field of Integrated Water Resource Management will be valuable and perhaps universally applied to other riparian communities who strive for progress along with protection and sustainability of the indigenous water resources. Furthermore, the cooperation of lake citizens, lake scientists, various branches of government, and the integration of economic impact valuation studies further emphasizes the power that a multi-disciplinary approach can contribute to the betterment of a local area with regard to progress and sustainability of both the community and the aquatic ecosystem.

THREATS TO INLAND LAKES FROM INCREASED DEVELOPMENT

Aquatic ecosystems such as lakes, streams, rivers, and ponds are highly susceptible to degradation in water quality due to their proximity to nutrient and sediment sources and demand for public recreation and survival. In a 2007 report, the United States Environmental Protection Agency (USEPA) determined that by 2002, nearly 47% of lakes and reservoirs in the United States had significant impairments. The nearly 11,000 inland lakes of Michigan are an essential resource to the recreation and tourism economy of Michigan, with over \$15 billion dollars per year generated in the state (Stynes, 2002). Unfortunately, the ecological and human health impairments to inland waters are not often realized until the system is in serious distress and the route back to ecological balance may be difficult at best. During pre-development times for year-round lakefront living, qualitative data was transformed into quantitative knowledge in an attempt to make valuation determinations of resources in the absence of obvious metrics (Cobb and Douglas 1928); however, with dramatic increases in development since that period, quantitative data on valuation is abundant and utilized for resource impact studies.

(Continued on page 21)

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A study of lakefront communities in Seattle, Washington by Brown and Pollakowski in 1977 analyzed market sales data between 1969-1974 and shoreline proximity data to conclude that property values declined with distance from the lake. This finding further strengthens the argument that the water resource provides significant value to riparian communities and thus is a functional component in the process of betterment achievement. It is therefore critical that rapid detection of environmental factors which may threaten this value be discovered and mitigated to avoid a deviation from the goal of betterment. Several studies have been documented to show this negative association between development and water quality and resultant property values in Michigan and other states. Minnerick (2001) noted that the townships of Gerrish and Lyon in Roscommon County, Michigan, increased by 246% and 185% respectively, between 1970 and 1990. Both of these townships contain the formerly pristine Higgins Lake, which has experienced increased shoreline development and water quality impairments such as increased chlorides, nitrogen, phosphorus, and turbidity, and the onset of invasive species such as the exotic aquatic plant, Eurasian Watermilfoil (*Myriophyllum spicatum*) which all impaired recreation, lowered biodiversity, and decreased property values. In an attempt to further elucidate the relationship between water quality and property values, Leggett and Bockstael (1999) analyzed multiple variables suspected to impact such values through the assessment of numerous water quality monitoring stations along the western shoreline of Chesapeake Bay (Anne Arundel County) which were established in zones where abundant waterfront transactions occurred. Hedonic regression analysis revealed that property values in areas with high fecal coliform contamination were lower and that waterfront owners were favorable towards payment for the concomitant reduction in coliform quantities. Another relevant study involved the review of 1,205 lakeshore property sales from lake communities in Minnesota lakes within the jurisdiction of the Mississippi Headwaters Region (Krysel et al., 2003). The study demonstrated the importance of water clarity in the retention of high property values. Furthermore, it was estimated that a one-meter difference in the loss or gain of water clarity was all that was necessary to have measurable impacts on the waterfront property values of the studied Minnesota lakes, with millions of dollars at stake. How can riparian communities attempt the goal of betterment as progress in developing communities is evident and lakes are continually facing environmental pressures from much needed development?

(Continued on page 30)

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Michigan Shoreland Stewards: Protecting Michigan Lakes Through Homeowner Education

By Eli Baker, Education Outreach Coordinator, Tip of the Mitt Watershed Council

Michigan is world renowned for its incredible water resources. For generations people have flocked to Michigan to experience world class fishing, boating, and sailing. Those of us that live in Michigan are well aware of the natural beauty of this majestic peninsula that we call home. But, according to results from the United States Environmental Protection Agency (USEPA) National Lakes Assessment, humans are changing Michigan's lakes, and not necessarily for the better.

In 2006, the USEPA and its state, tribal, federal, and other partners began implementing a series of surveys of the quality of the nation's lakes, rivers and streams, wetlands, and coastal waters (including the Great Lakes). The probability-based surveys are designed to provide nationally consistent and scientifically defensible assessments of our nation's waters and can be used to track changes in conditions over time.

The goal of these surveys is to address two key questions about the quality of the nation's lakes and reservoirs (not including the Great Lakes). What percent of the nation's

lakes are in good, fair, and poor condition for key indicators of trophic state, ecological health, and recreation? What is the relative importance of key stressors such as nutrients, bacteria and lakeshore development?

Initially in 2007, 50 Michigan lakes were randomly chosen as part of a statistically-based national survey. The second National Lakes Assessment survey was conducted in 2012. In order to allow for a state-based assessment, sampling was conducted at 53 randomly selected Michigan lakes. More information on the National Lakes Assessment can be found online at www.michigan.gov/waterquality.

The results of the Michigan surveys highlight some disconcerting trends. Lake habitat complexity, riparian vegetation cover, and mercury in lake-bottom sediment were the most widespread stressors. Around 50% of Michigan's inland lakes were found to have poor nearshore vegetation and habitat (see graph). As more and more lakefront properties are developed on our inland lakes,

(Continued on page 23)

valuable shoreline habitat is lost to manicured lawns and impervious surfaces. As vegetation decreases on the land and in the water, fish, turtles, birds, and many other animals lose feeding and breeding habitat. Turf grass also leaves the shoreline wide open to stormwater runoff from our roads, driveways, and houses that can carry harmful pollutants such as pesticides and fertilizers. All of these changes combine to decrease the water quality of the lake for the people and animals who call it home.

The 2012 National Lake Assessment results highlight the need for programs and initiatives that encourage riparian and shoreline protection, improvement, and restoration to improve and maintain inland lake water quality. Since 2016, the Michigan Shoreland Stewards (MiSS) program has been working towards meeting those needs.

The MiSS program was developed by the Michigan Natural Shoreline Partnership (MNSP), now in its 10th year, to help inland lake property owners understand the connection between their property management and their lake. The MNSP is a collaboration of organizations like Michigan Lake Stewardship Associations, Tip of the Mitt Watershed Council, and many others. The program is a voluntary web-based survey that asks property owners about their management practices on their entire property. Each property is broken down into four main areas: the upland, the buffer, the shoreline, and the lake.

Upon completion of the survey, respondents are awarded a gold, silver or bronze stewardship level. If a property does not yet meet the standards for one of these levels, a starter level will be indicated. Registered participants are able to print out a free certificate of recognition. Some properties will qualify right away, while others may need improvements before they qualify. Those who do not immediately qualify will be provided with suggestions for improvement. Property owners are encouraged to take the survey again

once they have implemented changes to their practices. For lakefront property owners who want to let their neighbors and passersby know they are proud Shoreland Stewards, there is an option at the end of the survey to purchase a weatherproof sign that indicates the stewardship level and program logo.

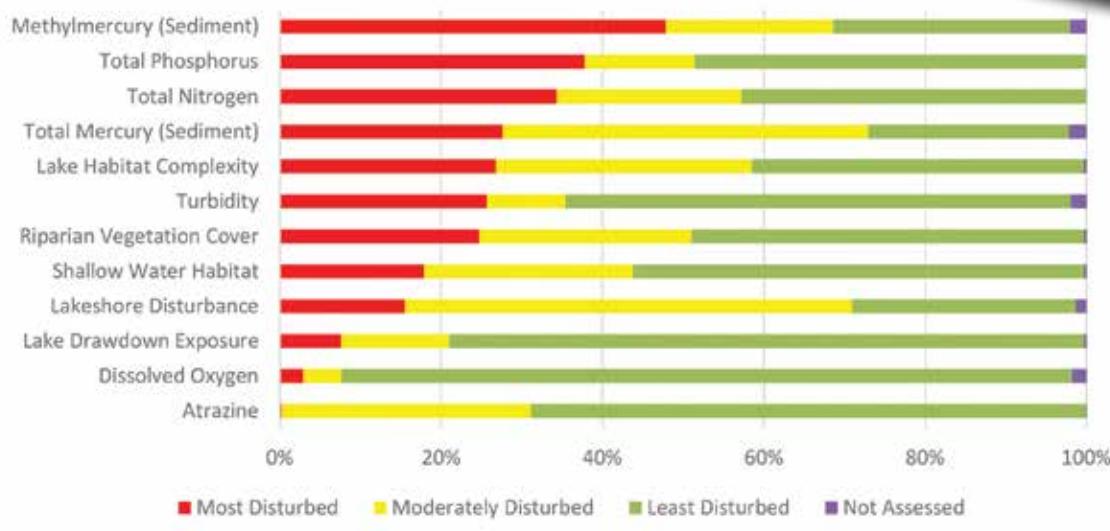
To date, over 625 property owners from all over Michigan have taken the survey. Of those property owners, 170 qualified for a gold level stewardship, 171 qualified for a silver level, and 137 qualified for a bronze level. If you add up the total length of surveyed shorelines it equals over 24 miles.

While 24 miles may seem like a lot of shoreline, Houghton Lake alone (Michigan's largest inland lake) has around 30 miles of shoreline. There are still a lot of shorelines to survey, and we need your help!

For all of the success that the MiSS program has had, it has been missing promotion and education at a local level. Therefore, the Michigan Shoreland Stewards Ambassador program was created. These Ambassadors will be that local link, working to help educate their friends and neighbors about the MiSS program and healthy lake practices. Anyone can become an Ambassador. All it takes is a little time and the initiative to get out and share your passion for protecting the lake you love. Ambassador training opportunities are currently being developed and will be offered in the near future. For information on the MiSS Ambassador program and trainings, visit www.mishorelandstewards.org.



National NLA Lake Condition and Stressors



LONG LAKE

(Continued from page 13)

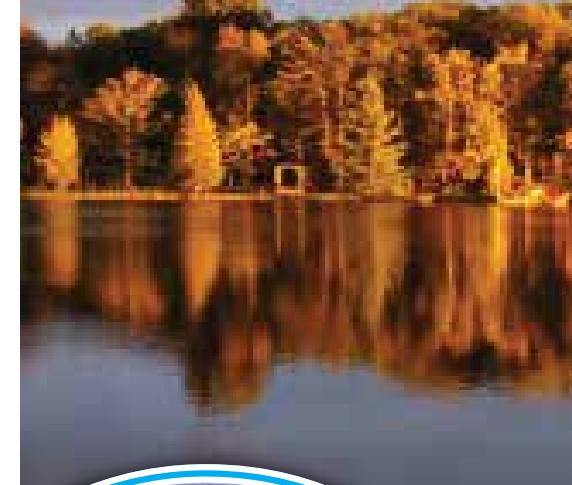
Positive results were visible within weeks of the application. Pleased with the outcome of the first year, LLPOA members voted to retain Jennifer's management services through 2015. Hiring a qualified lake manager was viewed by the membership as an important step in solving water quality issues and taking a proactive stance in addressing future environmental issues. A cadre of interested lake owners also volunteered to be trained.

As the issue with milfoil was developing on the lake, the village was experiencing its own set of economic problems. More buildings closed, including the last grocery store, which housed the Long Lake post office. With its closure, a one hundred twelve-year history of postal service in the village ended.

Although the growth of the village has temporarily stagnated, the lake is thriving. Today there are over 500 private cottages and several rental homes on the lake. Jim and Al LaBerge, grandsons of George Thayer and Louis LaBerge, the earliest settlers of the area, still maintain summer residences on the lake and families also have farms and businesses in and around the area.

One can still grab a burger and drink at the Long Lake Bar, hear tunes and dance there on the weekends, enjoy Uncle Kracker's "Smile" video that was filmed on the lake and in Hale, and reflect on the music of another former resident, Donny Brewer of the Grand Funk Railroad. One can enjoy dinner at Annie's Restaurant, find treasures at Nonie's Long Lake Emporium, shop at Corky's Corner Store, and purchase marine equipment and service and store boats at the Long Lake Marina.

Through the years and different phases of growth and development in the village and on the lake, one element has remained constant: a genuine love for the lake and its



people. The joy of being at Long Lake is a shared spirit that transcends generations. Baby boomers who "grew up" on the lake have fond memories of netting crayfish, bullheads, frogs and turtles; dropping a worm off the dock to hook crappies and bluegills; fly fishing and trolling for bass and pike; tromping through the woods and snapping pictures of wildlife; water skiing; playing marathon games of volleyball and badminton; swimming at the public beach, dancing to and listening to music at the Long Lake Bar; going to the Gem Theater; eating ice cream at the "Whippie Dip" (Big Bob's present location); climbing the forest fire towers; partying on the High Banks at AuSable River; and singing songs, sharing tales and roasting marshmallows over an evening campfire.

Joys experienced yesteryear have expanded to include extravagant summer fireworks, boat parades, recreational and cultural activities sponsored by the Association

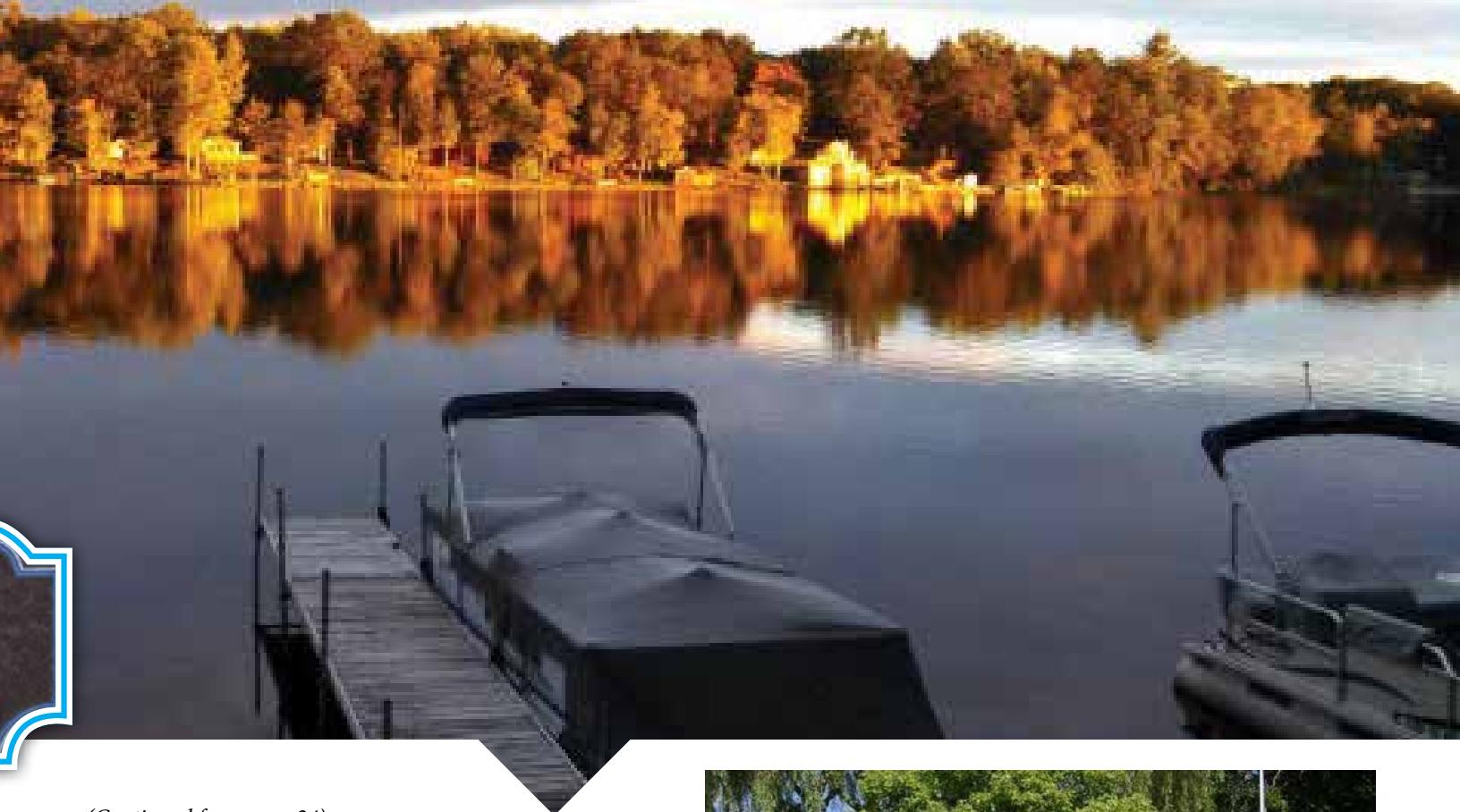
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Neighbors working together on Lakeside Landing
Photo Credit: Maureen Hearn



Taking out boat lifts in the fall
Photo Credit: Maureen Hearn



(Continued from page 24)

and Township, rafting with other boaters, watching meteor showers from the dock, communal work with neighbors “putting in” and “taking out” docks and lifts in the spring and summer, and sharing wonderful lake adventures with children. From the earliest pioneers settling in the village, history has taught us that there will always be challenges: a sluggish economy, the loss of jobs, increased taxes, maintaining property values, environmental worries, water quality concerns, safety issues, and modernizing without losing the aesthetics of being “up north.”

But throughout the past 140 years, we have also learned that members of each generation have risen to the occasion, expanding their horizons and placing their own unique stamp on the lake and surrounding environment.

Those who have loved this area and have called Long Lake “home” draw strength from the knowledge that those who have dwelled here have built a strong foundation, rearing their children to be water enthusiasts, lovers of nature and stewards of the environment. Our children are poised with the knowledge, experience and skills necessary to improve our community. They will expand the possibilities. And because of this, the future of our lake is bright and hopeful. 



Jim LaBerge's 1963 Chris Craft
Photo Credit: Jim LaBerge



A Happy Young Fisherman
Photo Credit: Maureen Hearn



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.)

Painter, Juno and Christiana Lake Aquatic Plant Study

September, 2018

By Bonnie Elder

Painter, Juno and Christiana Aquatic plant survey project is a joint effort between the PJC Lake Association and Edwardsburg High School biology program for this September. The goal of the project is to survey the three lakes for beneficial and harmful aquatic plants. With the information gained from the mapping, homeowners can make sound decisions about care and maintenance of lake habitat and invasive weed control. High school honor students will gain experience in collecting and identifying plant materials and recording results. The students will also use the results to interpret the data and share that information with lake owners. It is our hope that this project will inspire the students to become responsible lake stewards in the future and bring both groups together for a common goal—a better understanding of our lakes.

I attended the Plant Identification training session at the 2018 Spring MLSA Conference. It was my hope that this training could be used by our lake. It was good to hear that a similar plant study had been done in early 2000, and lake association members eagerly volunteered to drive boats, make rakes, create identification manuals and bake cookies. That study was done with biology teacher Keven Bartz and past president, Nancy Bowman. In meeting with Mr. Bartz, we agreed to use the past format with current protocol recommended by MSU and CLMP.

Aquatic plant identification and mapping helps us to monitor the growth of invasive plants. Approximately 13 transects on each lake will be drawn. Special consideration will be given to include areas by inlets, beaches and boat ramps—prime spots where invasive plants are introduced into the waterways. Plants will be collected along transect lines at various depths using a specialized rake. Students, along with an adult volunteer, will examine and identify the



Starry Stonewort

collected plants. Their findings will be recorded. This data will then be translated into a workable report.

On the day of the project, students will arrive by bus and assigned into a group. Each group will be loaded on a pontoon and then head out to their assigned area to begin their work. The class and volunteers will be able to enjoy free time and lunch at a small, private campground on the west end of Juno Lake. A short work session will follow lunch, and the students will return to the bus to head back to school for dismissal. PJC is grateful for the many volunteers that are working to make this project a success.

***Editor's Note:** A follow up to the study will be in an upcoming issue. Stay tuned. ☺*

NEW OFFICERS FOR THE MLSA BOARD

By Paul J Sniadecki, MLSA Board Director

The MLSA Board of Directors met in June, 2018 and took action to fill the organization's officer positions pursuant to our organization's By-Laws. Mike Gallagher, Gull Lake, was elected as the new MLSA President, and John Wilks, Indian Lake, was elected as the new Vice-President. Nancy Beckwith, continues as an officer and board member. Nancy is a "longtime" MLSA board member and has dedicated many years of work for the on-going success of MLSA. The current term of office for all MLSA officers extends through December 31, 2019. Officers must also be board members. Other MLSA board members serve on a "staggered term" basis to ensure the continuity needed to fulfill the important mission of MLSA.

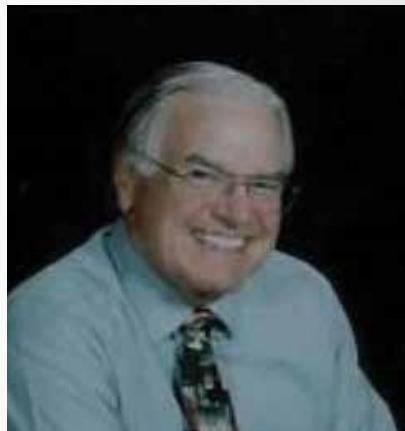
MIKE GALLAGHER



Mike Gallagher has been a riparian property owner since 1954, long-term board member of the Gull Lake Quality Organization and the Four Townships Water Resources Council, and a board member on several non-profit organizations. Mike is also a 2015 graduate

Michigan Lake and Stream Leaders Institute and a CLMP volunteer since 2008. Mike also effectively works with local government officials to protect inland lakes and watersheds. Local officials frequently contact Mike for advice. Mike also worked with his local township to have a permanent decontamination/dis-infection station (a.k.a. boat wash) installed at the largest boating access site on Gull Lake. In that collaboration, Mike was also successful in having the township pay for a significant share of the construction costs.

JOHN WILKS



John Wilks has been a riparian property owner since 1984, President of the Indian Lake Association of Vicksburg from 2008-2014, and a CLMP volunteer since 2004. John earned a Ph.D. from Cornell University and is retired after serving 32 Years as a research scientist for drug discovery in the pharmaceutical industry. John and his spouse, Nancy, have pioneered the use of water testing parameters and protocols on Indian Lake that go far beyond the CLMP battery of tests. If there is something to know about the waters of Indian Lake, John has a test for it, as well as years of data. The Wilks "team" are examples of "citizen scientists" providing the needed stewardship for inland lakes. John has also served as the editor and lead writer for his lake association's newsletter, which ranks among the best in the state. The MLSA Board of Directors looks forward to the leadership and vision that these four well-qualified officers bring to the stewardship mission of MLSA. Direct contact information for MLSA officers and board directors can be located in the first few pages of *The Michigan Riparian* magazine, published quarterly. Plan on attending the 2019 MLSA Annual Conference for your opportunity to meet these volunteer leaders in person, and share your enthusiasm for Michigan's inland lakes. 

REPRINTING

Articles from the Magazine

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THIS TOWNSHIP NOW HAS TWO WATERCRAFT WASH STATIONS!

By John Hoek, Parks Commissioner for Prairievile Township

In its spring/2018 edition, *The Michigan Riparian* magazine contained an article critical of townships in **general** for failing to exercise their ordinance authority to protect the inland lakes within their boundaries. Prairievile Township is **not** a member of that group!

Early in 2015, Supervisor Jim Stoneburner and his board took the position that their township's launch site is literally the "gateway" to Upper Crooked Lake and that any attempt to control the further introduction of aquatic invasive species would not be successful without its full support and participation. (Upper Crooked Lake already had five non-native plants in its waters!)

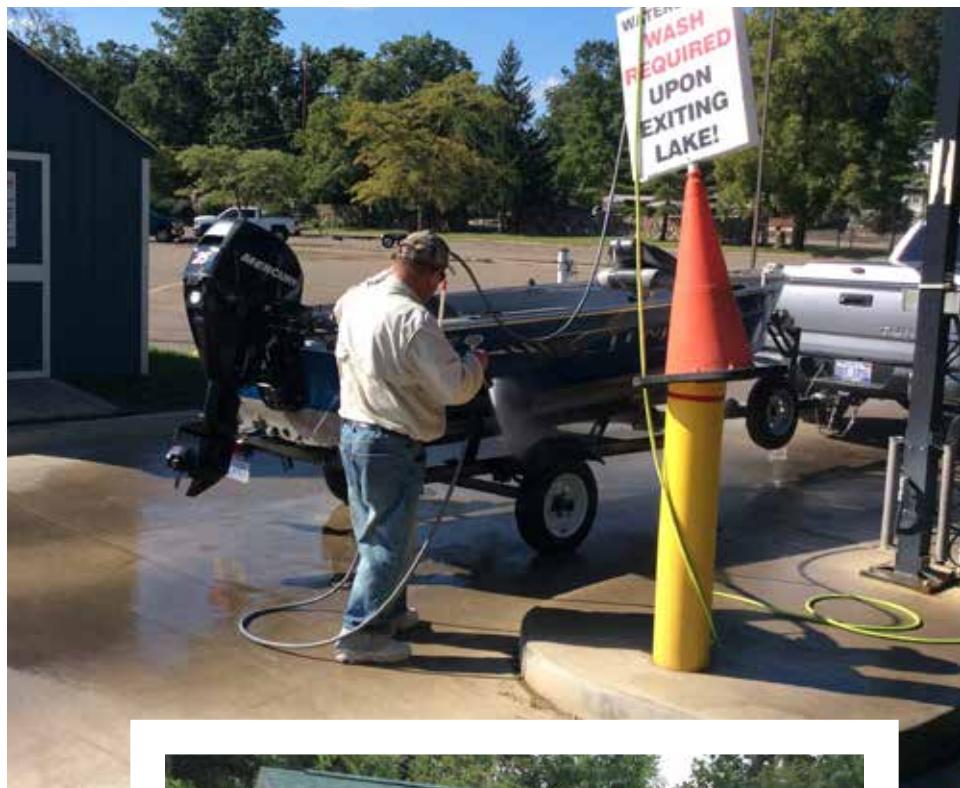
Accordingly, in 2016, the township awarded a one-time grant to help finance the construction of southwest Michigan's **first** watercraft wash station. Simultaneously, it **did** exercise its ordinance authority by adopting a model aquatic invasive species prevention and control ordinance which mandates that all watercraft be inspected upon site entry and that all watercraft be washed prior to exit. The ordinance also contains substantial enforcement penalties for failure to comply.

During its first season of operation (May-September, 2017), over 1,700 watercraft were checked upon entry. One hundred and fifty-one (151) required some degree of decontamination! Those watercraft had previously been launched in 146 different lakes or streams prior to their Upper Crooked Lake launch. And, 671 had been in another inland lake less than five (5) days before being launched into Upper Crooked Lake.

In 2017 the Prairievile Township Board again responded to a request by the Gull Lake Quality Organization (GLQO) to help construct a second wash station at its Gull Lake Park launch site. By early June, a station with three washing units became operational. Of the watercraft inspected, approximately 10% needed to be decontaminated before launching. While one-half of the watercraft inspected were returning to Gull Lake, the remaining half had previously been in 125 different lakes prior to their Gull Lake launching.

At both sites emphasis is given to educating launch users about how recreational boaters unknowingly spread invasive species from lake to lake and how wash stations can help slow down such spread. Given this information, staff found that

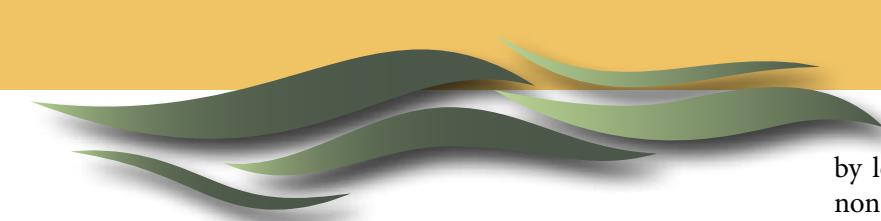
Upper Crooked Lake Wash Station



Gull Lake Wash Station

initial resistance to inspection very rapidly dissipated and become one of support. And, by the close of last summer, many watercraft owners were self-initiating the washing of their boats upon both entry and exit.

The officers and board members of Prairievile Township have demonstrated that townships **can** play a key role in protecting the environmental health, recreational viability and economic value of the lakes within their boundaries. And, as a matter of sound public policy, it has done so not once-but twice! 



"Integrated Water Resource Management at the Local Level for the Sustainability and Betterment of Riparian Communities"

(Continued from page 21)

Attempts to Achieve a State of Betterment through Sustainable Multi-Disciplinary Integrated Water Resource Monitoring and Management Programs

To assess baseline conditions of many inland lakes, the Michigan Department of Natural Resources and Environment (MDNRE) has instituted the Lake Water-Quality Assessment (LWQA) Monitoring Program to measure water quality parameters in 700 Michigan inland lakes between 1997 and 2015. The federal constituents include the United States Geological Survey (USGS) and local support is derived from volunteer citizens and riparians through the Cooperative Lakes Monitoring Program (CLMP) which was created by the Michigan Lake and Streams Association (MLSA). Field data from all of these stakeholders will then be calibrated with satellite data to obtain modernized lake data in a timely and economically efficient manner during future years. This program is an example of a sustainable one which utilizes local, state, and federal resources for the determination of the water quality status of inland lakes at both temporal and spatial scales.

Water quality programs which monitor water resources for the protection of both communities and the environment are not unique to the United States. The Government of Canada produces an annual report on Canadian Environmental Sustainability Indicators which includes air quality, greenhouse gas emissions, and freshwater quality data to educate citizens of current environmental conditions. A recent report issued by the Government of Canada in 2007 indicated that non-point source pollution had increased and exceeded aquatic life protection standards. The purpose of the report was to educate the citizens and garner support for the improvement in measured parameters throughout Canada. Although the publication was not procedural in an offering of mitigation strategies or resources, it did reach most of the country and increased education could lead to better decision-making throughout most susceptible regions. These examples highlight the need for proactive local resources that can address water quality issues on a manageable scale. Furthermore, adequate resources and access to data must accompany a willingness to learn

by local municipality officials and citizens. In the case of non-point source pollution, it has been recommended that management strategies of phosphorus originate in areas of higher probability of phosphorus loading, such as high erosion and surface runoff areas (Heatwole et al., 1987; Heathwaite and Johnes, 1996).

CONCLUSION

The availability of baseline and continuous water quality data will allow for the determination of critical mitigation measures that may be needed for water quality improvements and critical retention of good water quality for the betterment of the riparian communities who rely on these resources for their well-being and financial security. I argue that it would be wise to incorporate the municipalities into both monitoring and decision-making programs since the total revenues for each local unit of government are dependent on the taxable values of properties around the lake which have been shown to significantly decline with degradation in water quality. Furthermore, education of local officials would allow for future municipal positions to acquire Integrated Water Resource Management training which would be a component of a sustainable and continuous program.

Wolman (1965) proposed the concept of urban metabolism in that the material flows into an urban setting should not proceed to excess, especially without increases to the outflow of materials from daily consumption in a manner that is minimally detrimental to life. This concept could be directly applied to both the influxes of non-point source pollutants from the immediate watershed and urban shoreline development impacts to water quality and possibly incorporated into a functional framework for the reduction of pollutant loads and water quality degradation. If we can determine the amounts of non-point source loads a particular lake can accommodate without impairment to key indicators of abiotic and biotic integrity, then loading rates (such as Total Maximum Daily Loads, or TMDL's) can be more readily established and the system can achieve a steady-state of sustainability as long as those levels are not exceeded. Furthermore, the determination of Critical Source Areas (CSAs) assists conservation and land use planners with management decisions within a specific watershed (Sivertun et al., 1998). Walker and Salt (2006) emphasize the importance of the recognition of resilience with respect to natural systems which envelops the concept that ecosystems vary in their abilities to absorb disturbance and remain functional. Insight into this probability of disturbance assimilation is usually executed with the development of ecological scenarios where various aspects of the system are analyzed with respect to known or predicted disturbances. An intimate knowledge of the lake and surrounding characteristics along with socio-economic factors therefore

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becomes critical for the determination of precise scenarios that may encourage sustainability and protection of the lake within the community. With all of this information present, the riparian communities may then continue with normal activities and perhaps even grow, with the prospect of betterment toward both property attributes and those of the lake ecosystem.

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"Integrated Water Resource Management at the Local Level for the Sustainability and Betterment of Riparian Communities"

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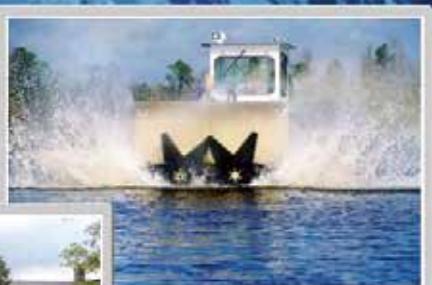
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More on Wake Boats

By Clifford H. Bloom, Esq.

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Rarely has an issue involving Michigan lakes stirred up as much controversy and anger over the last few years as so-called “wake boats” (also sometimes referred to as wave boats, wakeboard boats, wake-surf boats, bladder boats or ballast boats). Both this magazine and the Michigan Lake Stewardship Associations (formerly, the Michigan Lake & Stream Associations) (“MLSA”) have received a great deal of public input regarding wake boats, both pro and con. Even though I have written two fairly recent articles for this magazine regarding wake boats (the Fall, 2013 article entitled “Of Mosquitoes and Killer Bees” and a more recent article titled “The Killer Bees Appear to be Winning – An Update regarding Wake Boats/Bladder Boats” in the Fall, 2017 issue of the magazine), readers still request more information about the potential negative impacts of wake boats.

Many riparians are outraged at what they perceive as significant negative impacts on both water safety and the environment from wake boats. Many riparians insist that the huge waves produced by wake boats are destroying their shoreline and sea walls. A significant number of riparians are also concerned about safety given that the large waves created by wake boats can roll around moored boats, break mooring lines, and create turbulent conditions in near-shore areas. They argue that wake boats should not be allowed on smaller or narrow lakes, and that wake boats should be required to remain a significant distance from shore on bigger lakes when the wake boats are producing waves.

Both this magazine and MLSA have also heard from owners of wake boats. Some of those owners have been reasonable advocates for their position and have suggested courtesy and thoughtfulness as a way of overcoming any perceived problems created by wake boats. They point out that few if any definitive scientific studies have been done to demonstrate conclusively

that wake boats harm the shoreline, destroy sea walls or hurt the environment. They also argue that some of the shoreline damage that is occurring is due to high water rather than wave action created by wave boats. Other advocates of wake boats have not been as polite. They accuse the people complaining about wake boats of being uninformed and oppose any further governmental regulation that would “take away their property rights.”

It is true that very little scientific research has been done regarding the negative impacts of wake boats, as wake boats are a fairly recent phenomena, at least on a large scale. A study done on the Chesapeake Bay area in 2017 by the Scientific and Technical Advisory Committee was fairly critical of wake boats. Of course, some of the complaining riparians assert that scientific proof is not needed as they have personally seen the large waves created by a nearby wake boat smash into the shore and thrash around moored boats. Nevertheless, more scientific and empirical based objective studies regarding the physical impacts of wave boats would be helpful.

It does seem self-obvious that wake boats probably are not appropriate for small or narrow lakes. By definition, if a lake (or portion of a lake) is no more than 200 to 300 feet wide, a wake boat operating in the center of that narrow area can still throw huge waves within the normal 100 – 150 foot setback from shore. One can only imagine what would happen if a new truck were designed aerodynamically such that when it is lawfully operated on a public road, the shock waves knock over mailboxes, fences and landscaping items adjacent to the road. The public outcry would be deafening and undoubtedly there would be legislation enacted immediately prohibiting or regulating such truck design. Many riparians (particularly on smaller lakes) will appreciate that analogy.

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More on Wake Boats

Clearly, it will be difficult to regulate wake boats or even ban them from smaller or narrow lakes for two basic reasons. Number one, the boats are fun. Second, a huge amount of money is involved. New wake boats typically start out with a price tag of \$60,000 to \$90,000 and can go much higher. As more than one person has said, wake boats have virtually rejuvenated the boating industry.

The physical damage caused by wake boats is largely a function of how close to shore their operator uses the wave-making ability and the depth of the lake where the boat is used. The further away from shore, the less shoreline damage. Distance (particularly over 200 to 300 feet from shore) allows the energy within a wave to dissipate before reaching the shore and minimizes the damage. Although one can easily visualize waves above the surface of the lake, wake boats also cause a wave effect under the water. Damage may be done to the bottomlands of a lake (including destroying critical fish habitat) if the wave feature is used in portions of a lake less than 15 to 20 feet deep.

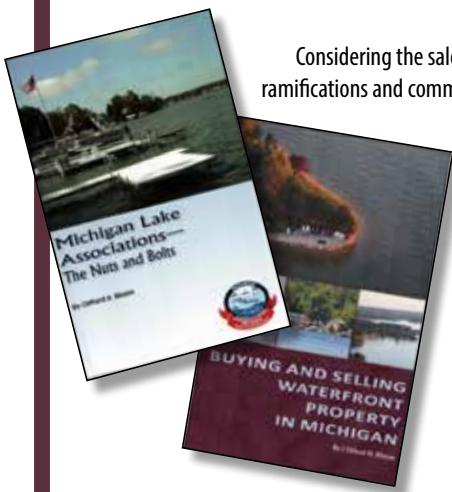
Just as one would normally not drive a high-speed Ferrari in a small residential neighborhood or use cigarette boats or a large cabin cruiser on a 20-acre lake, is it really appropriate to use a wake boat in a small lake or close to the shoreline in a large lake? Many riparians believe that common sense dictates that wake boats should not be used in small or narrow lakes.

A wake boat is not an essential item. Instead, it is but one of many types of watercraft. Unlike many other sports, there are many alternatives to using wake boats – conventional power boats, pontoons and other boats.

Undoubtedly, the public outcry regarding the large waves created by wake boats will only increase over time.

If you would like to share your experiences or views on wake boats (whether "pro" or "con") in a respectful way, please send a letter or email to MLSA at info@mlswa.org. MLSA or this magazine might use some of those comments in a future issue of the magazine. 

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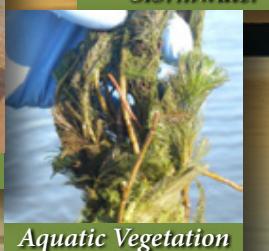
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