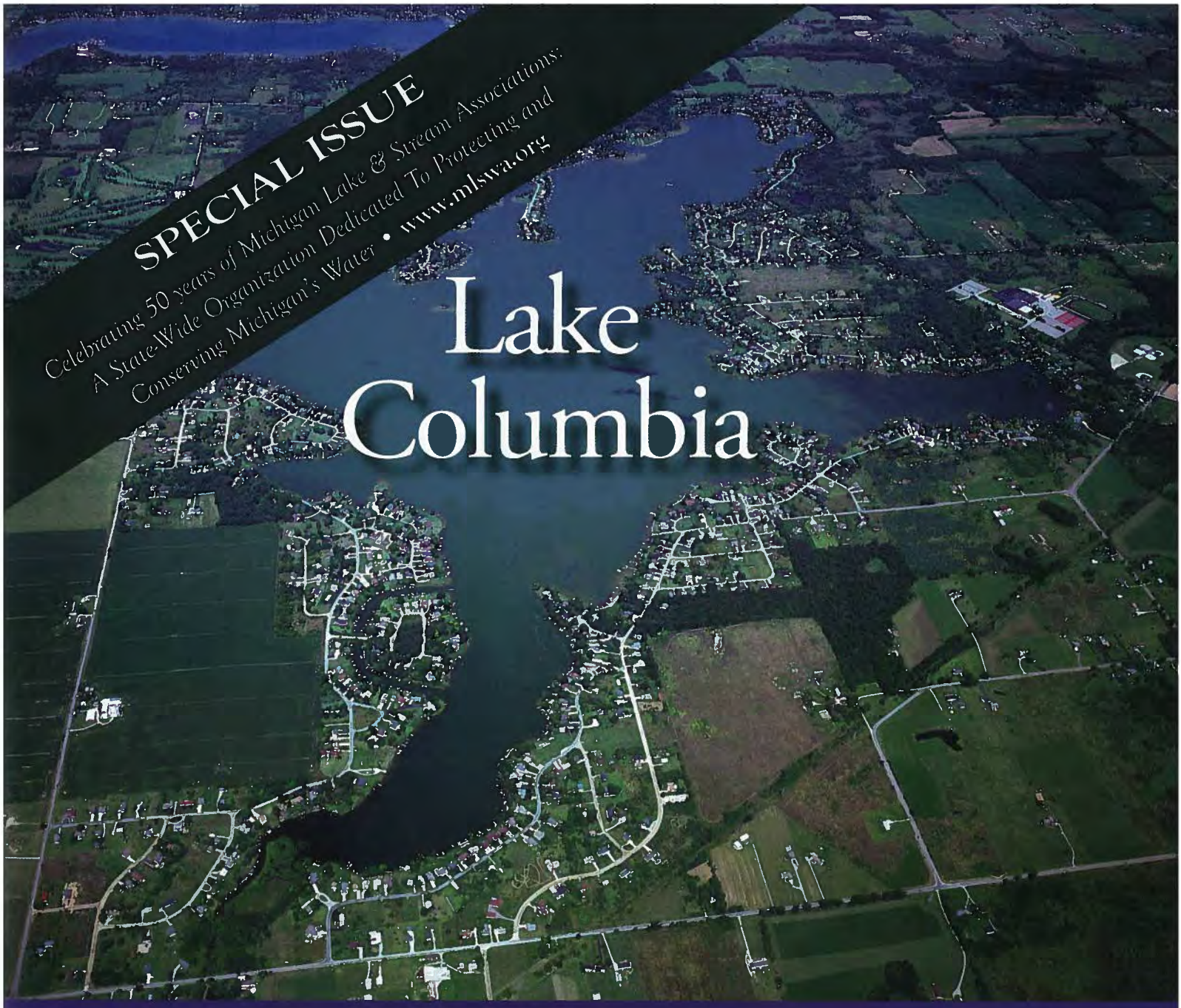
SPECIAL ISSUE

Celebrating 50 years of Michigan Lake & Stream Associations:
A State-Wide Organization Dedicated To Protecting and
Conserving Michigan's Water • www.mlswa.org

Lake Columbia



Lake Columbia in Jackson County is an 840-acre man-made lake with more than 12 miles of shoreline. The water source of Lake Columbia is Goose Creek, which is part of the Raisin River. There are more than 1,300 homes in the Lake Columbia Property Owners' Association. Most residents live on the lake year-round.

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

WINTER 2009

THE MICHIGAN RIPARIAN

Vol. 44 No. 4

RIPARIAN (r-'per-EE-n) adj. Relating to or living or located on the bank of a natural watercourse, such as a river, or of a lake or a tidewater.

Michigan Lakes & Streams Foundation

Your Gift Lives Forever.

For 49 years, MLSA has provided all of these benefits and resources to its members and the citizens of Michigan on a limited budget - relying almost entirely on volunteers. If we are to continue to be effective as the leader in the state in protecting our water resources for future generations and continue to be your voice in Lansing and continue to defend your riparian rights ...

... We need Your Support!

What is the Michigan Lakes & Streams Foundation?

The Michigan Lakes & Streams Foundation is a 501(c)(3) nonprofit, charitable organization established in 2004 by Michigan Lake & Stream Associations, Inc. (MLSA) to provide an endowed fund) for developing a stable and permanent financing source to help support MLSA's many programs and initiatives.

Why an Endowed Fund?

An endowed fund ensures the principal from all gifts will always be there to help provide funding to MLSA. Only interest earned will be utilized. The principal will remain untouched.

Why Support ML&SA?

MLSA's membership consists of more than 300 lakes & streams Associations statewide, representing more than 100,000 members interested in protecting the future of Michigan's water resources. For 49 years, Michigan Lake & Stream Associations, Inc., has labored on your behalf - most likely without you even knowing about it. On a national, regional and state level, MLSA represents its members through involvement in a variety of programs and issues involving state waters. MLSA is actively supporting numerous programs. Some of the key issues MLSA is currently dealing with include:

• Riparian rights • Lake and stream water quality • Controlling invasive species • Lake/stream watershed management • MLSA is also your voice in Lansing, representing you.

How Can I Contribute?

There are four ways you can make a difference in the future of Michigan's lakes and streams:

1) You can leave a percentage of your estate through your will to the Foundation. No matter what kind of assets are in your estate, and regardless of the value, the percentage you specify will be given by your personal representative. 2) You may also wish to name a fixed-dollar amount or other specific property as your gift. This ensures a definite gift regardless of other bequests. 3) After bequests are made to other heirs, you can leave whatever is left from your estate to the Foundation. This assures that others are taken care of first, but that something goes to the Foundation that is important to you. 4) Make a cash contribution any time.

Consult your own attorney or accountant for further ideas on the most appropriate way to make your bequest. For more information, contact Franz Mogdis, President of the Board of Directors of the Foundation, at 989-831-5261; or Pearl Bonnell, Treasurer of the Foundation, at 989-257-3583 or pbonnell@mi-riparian.org.

Baum Family Trust v Babel appeal

Although the first-tier lot owners in the 2000 *Baum Family Trust v Babel* case have asked the Michigan Supreme Court to review the disastrous decision by the Michigan Court of Appeals, as of the date of print of this magazine, the Supreme Court had not yet determined whether to take the case.

This is the case where the Michigan Court of Appeals disregarded a century of prior long-settled Michigan real property law and held that first-tier lots along platted public roads that run parallel to lakes in Michigan are no longer deemed to be lakefront or riparian properties.

Please reference the extensive article on this case in the Autumn 2009 issue of *The Michigan Riparian.*

The Michigan Waterfront Alliance and the Higgins Lake Property Owners Association have filed a joint amicus brief in favor of the first-tier lot owners (who were previously riparian) asking the Michigan Supreme Court to take the appeal and reverse the Court of Appeals' decision below.

Please reference the extensive article on this case in the Autumn 2009 issue of *The Michigan Riparian.*

A copy of that amicus brief can be reviewed at the Michigan Lake & Stream Associations, Inc. website at www.mlswa.org. That website also has various action alerts that discuss the 2000 Baum case.

Letters To The Editor

Send letters to: The Michigan Riparian
304 East Main Street, Stanton, MI 48888
or e-mail to fmogdis@mi-riparian.org

Dear [Riparian],
After a near tragedy, our lake association is seeking help in the event a similar accident would occur. In early April of 2007, a hovercraft flipped over throwing its two passengers into the icy water. Since this occurred shortly after the ice had melted, there were no boats on the lake as yet to effect a rescue.

The township fire department rescue unit was called but the firemen were unsure of the location of the accident and therefore remained at the launch site. Fortunately, two residents found an available canoe and were able to rescue the victims.

We felt fortunate regarding the outcome, but wondered about a future incident and how the rescue unit could quickly be provided accurate information as to location. Our lake has several major bays and areas not served by a public road. To be truly effective, the rescue unit would need to know which launch site and which bay to visit.

Perhaps some lake association or community has a procedure or approach that would be beneficial to Lakeville Lake. We would appreciate any assistance in this regard.

– Paul Woodring, President
Lakeville Lake Property Owners Association
P.O. Box 96, Lakeville, Michigan 48366

Cabomba Caroliniana's Unwelcome Appearance

Cabomba caroliniana, an attractive, yet highly invasive, aquatic plant, has made an uninvited and unwelcome appearance in several Michigan inland lakes. Also known as *fanwort*, this pesky native of South America has been observed in at least 10 Michigan inland lakes within the past year.

A popular aquarium plant, cabomba caroliniana is identified by intricate fan-shaped leaves and white-pink floating flowers. A highly aggressive and invasive plant, fanwort will rapidly force out native aquatic plants and readily form monocultures in depths up to three feet. Cabomba caroliniana equals or surpasses Eurasian watermilfoil in its ability to rapidly colonize relatively shallow and quiet water areas of infested inland lakes.

Fanwort's active growing season will parallel Michigan's warm weather season of approximately May through September. As of early October 2009, fanwort has been observed in Jackson, Oakland, and St. Joseph counties' inland lakes. The introduction of yet another aquatic invasive species in Michigan inland lakes highlights the need for lake users to become proficient in recognizing and detecting these destructive invaders in their early stages of infestation – before they spread to levels that are difficult and expensive to manage.

– MLSA October 2009 E-Newsletter

Bob Smith is President and Owner of Aerial Graphics of Grand Rapids. He often contributes our front cover photographs.

Live On A Lake?

Concerned About the Future of Your Water Resources?

Membership dues of $35 entitles you to a year's membership and a subscription to The Michigan Riparian magazine as well as other benefits.

Mail check payable to MLSA to:
Michigan Lake and Stream Assoc., P.O. Box 57 Lake George, MI 48633
Or Go Online to Download A Full Application Form
http://www.mlswa.org/applying.htm

First Name: _____

Last Name: _____

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City: _____

State and ZIP: _____

Phone Number: _____

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MICHIGAN LAKE AND STREAM ASSOCIATIONS 50 Years

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THE MICHIGAN RIPARIAN
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THE MICHIGAN RIPARIAN magazine is published quarterly and is mailed to subscribers in the Spring, Summer, Autumn and Winter.

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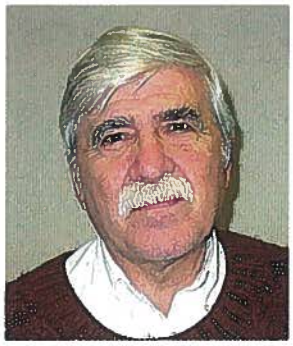
FROM THE PUBLISHER

Celebrating 50 Years



Franz Mogdis

This is a very special issue of *The Michigan Riparian*, the only quarterly publication devoted exclusively to protecting the water resources of Michigan and the property rights of riparian property owners. Not only is it our largest issue ever – 40 pages – but it celebrates 50 years of the Michigan Lake & Stream Associations Inc. (MLSA) efforts as a statewide organization and its commitment to ensuring Michigan waters are protected and available for the enjoyment of Michigan's citizens. Information about MLSA's many programs, priorities and annual conference are highlighted. It will be distributed to over 9,000 subscribers; equally important, another 10,000 copies will be made available at State of Michigan visitor centers, retail outlets statewide and other interested individuals and organizations. Those accessing this issue at these locations will be new readers who, hopefully, will begin to understand the value and importance of protecting Michigan's waters and become part of a proactive team to ensure that it happens.

Articles in this issue include the first of a two-part series on the value of a lake plus an overview of the recently completed Houghton Lake Management Plan. Not only is Houghton Lake the largest inland lake in the state, but it also is significantly impacted by the watershed surrounding it. Future issues of *The Michigan Riparian* will explain and expand on the need for the development of watershed management plans for lakes, rivers and streams. Attorney Cliff Bloom's column is a regular feature and a must-read. You'll also find other bits of information regarding water issues and current water-related initiatives.

We invite you to contact us if you have issues you would like to see us cover or have comments on the articles you've read. *The Michigan Riparian* is here to help you. Let us know what you think.

– Publisher, Franz Mogdis
– Editor, Jennifer Churchill

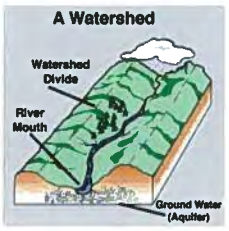
The 10 Most Important Things You Can Do To Preserve Your Inland Lake

1: Understand Your Inland Lake

Your inland lake is a living freshwater ecosystem. Each of Michigan's 11,000 lakes can be defined and categorized by the unique and variable interaction of physical, biological and chemical components at work in or near your inland lake's basin. Developing a basic understanding of your lake's ecosystem is an important first step in getting more involved in preserving and protecting these fragile freshwater resources.

To learn more about your inland lake's ecosystem, visit "Water on the Web," a well written and easy to understand on-line educational resource brought to you through a collaborative partnership of the University of Minnesota and the National Science Foundation. The web address is www.waterontheweb.org.

2: Explore Your Lake's Watershed



Inland lake water quality is a direct reflection of the ecological health of the watershed in which your lake is located. A watershed is defined as the land that water flows across or through on its way to a common stream, river, or lake. By exploring the wetlands, streams, rivers and other natural features within your inland lake's watershed, you will begin to develop an understanding of how these features directly affect the overall quality of your inland lake.

To learn more about the watershed of which your lake is an integral part, visit the U.S. Environmental Protection Agency's on-line "Watershed Academy" at www.epa.gov/watertrain.

3: Use Phosphorus-Free Lawn Fertilizer

Please use
Phosphorus Free Fertilizer
23-0-2

As you learn more about your lake, you will soon discover that excess nutrients can degrade freshwater quality. Phosphorus supplemented lawn fertilizers in particular have often been identified as a prime source of excess nutrients that may lead to algae blooms and/or explosive growth of aquatic plants within your lake.

In recent years, lawn care product companies have developed effective alternatives for riparians concerned about their inland lake ecosystems. Many of these products are now readily available at local retail outlets. To learn more about less harmful methods of caring for your lakefront lawn, visit the Partnership for Phosphate Reduction web site at www.dcphosphatefree.org.

4: Create A Rain Garden

Many of Michigan's inland lake shorelines and near shore areas have long since lost the native vegetative cover and natural woody structure that once provided an effective natural buffer between water's edge and the surrounding land. The loss of these features may lead to high volumes of nutrient laden stormwater runoff from your riparian lakefront property directly into your lake. Creating a simple rain garden on your lakefront property can help re-establish this natural buffer and prevent harmful nutrients from entering your inland lake's ecosystem.

For information on creating a rain garden, visit the West Michigan Environmental Action Committee sponsored web site dedicated to creating rain gardens at www.raingardens.org.

5: Re-Vitalize Your Shoreline

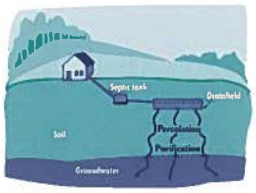
Thousands of Michigan's inland lakes have been negatively impacted by the destruction and/or degradation of the beneficial natural features that once flourished at the water's edge. Densely vegetated areas that once provided buffers and natural resistance to shoreline erosion have been replaced by well-manicured lawns and seawalls. Attractive and affordable techniques have been developed in recent years that allow riparians to restore beneficial natural shoreline features to their lakefront properties. To explore methods and practices for preserving or restoring natural features to your lakefront property shoreline, visit the Michigan State University shoreline restoration and preservation web site at www.shoreline.msu.edu.

6: Enroll in MiCorps CLMP

Michigan Clean Water Corps

The Cooperative Lakes Monitoring Program has evolved into one of our nation's largest and most successful volunteer monitoring efforts. This high-quality, affordable program is now a major component of the Michigan Clean Water Corps, an MDEQ managed collaborative partnership, in which Michigan Lake and Stream Associations plays an important role. Enrolling in this program allows you to collect important data about your lake that can reveal significant changes in the overall quality of your inland lake. To learn more about this outstanding program visit the MiCorps Cooperative Lakes Monitoring Program website at www.micorps.net/lakeoverview.html#about.

7: Maintain Your Septic System



The vast majority of Michigan's inland lake residential properties are located in rural areas not yet served by modern sewer systems. Most of these residences rely upon septic tanks and drain fields for solid and liquid waste management. Proper maintenance of these often antiquated systems is required to prevent unwanted seepage of harmful nutrients into your inland lake. Harmful algae blooms and explosive growth of aquatic plants are often attributed to excess nutrients seeping from faulty residential septic systems. For more information on how your septic system works and for useful maintenance tips, visit a helpful and practical website dedicated to septic systems at http://septictankinfo.com.

8: Preserve Native Aquatic Plants

Native aquatic plants play an important role in maintaining a balanced and healthy inland lake ecosystem. Aquatic plants provide important habitat for fish and aquatic insects, help cycle and absorb available nutrients that might otherwise be available for the production of unwanted algae blooms, produce dissolved oxygen and maintain water clarity by preventing the re-suspension of particulate organic matter in the water column. Lake residents often fail to recognize the critical role of native aquatic plants in keeping their inland lake healthy and in balance. To learn more about the important role of aquatic plants in inland lake ecosystems, visit this well written and nicely illustrated website at www.wisconsinlakes.org/aquatic_plants.htm.

9: Learn To Identify Exotic Species

The aquatic ecosystems of thousands of Michigan's inland lakes and streams, as well our Great Lakes, have been profoundly affected by foreign aquatic plant and animal species. These highly adaptive and aggressive exotic species have severely damaged many of our most valuable freshwater resources by destroying native plants, animals and associated aquatic habitats. Millions of dollars have been spent by riparians attempting to control the spread of these costly invaders. The most effective strategy is to detect and manage exotic infestations in their early stages. To learn more about what you can do, visit the MI Sea Grant website at www.miseagrant.umich.edu.

10: Join Us

Michigan Lake & Stream Associations is a non-profit, state-wide, primarily volunteer organization dedicated to the preservation and effective management of Michigan's vast treasure of high-quality inland lakes and streams. Members include inland lake and stream associations, individuals, corporations, and stewardship organizations who share our passion and commitment. By joining MLSA, you add your voice to our unified statewide message of stewardship and responsible use of our vast freshwater heritage. You will also receive a one-year subscription to *The Michigan Riparian*, our state's premier publication dedicated to waterfront living related issues and topics. To learn more and download a membership form, visit our website at www.mlswa.org.

Membership Benefits & Partnerships

Michigan Lake and Stream Associations
Membership Benefits

"We encourage you to become actively involved in working within your community as an advocate for the conservation of your favorite inland lake or stream. Michigan Lake and Stream Associations is committed to providing you the support you need to be successful in this important endeavor... "

Join Us !

- You and your association will become part of a unified voice for the protection of our state's freshwater resources
- An annual subscription to **The Michigan Riparian Magazine**
- Defending your riparian rights in important Michigan court cases
- ML&SA monthly E-Newsletters
- ML&SA Newsletter
- State-wide advocacy to benefit Michigan's inland lakes and streams
- Representing your interests in collaborative partnerships
- Organizational and technical support to member associations
- Educational publications and brochures
- Web site hosting for member lake and stream associations
- Lake and stream association liability insurance program

Contact Roger Carey , ML&SA Membership Coordinator, at 989 588-9538, or e-mail mcarey55@charter.net for further information regarding membership.

You may also visit our website to download membership applications.

www.mlswa.org

Michigan Lake and Stream Associations
Partnerships to Benefit Michigan's Inland Lakes and Streams

Michigan Lake and Stream Associations is an enthusiastic member of several highly effective collaborative partnerships. We recognize that no single government agency or organization within the state of Michigan possesses the capability to effectively manage and protect our vast heritage of inland lakes and streams. Michigan Lake and Stream Associations is a proud and active partner in the following collaborative initiatives, which were all created to benefit Michigan's inland lakes and streams:

Michigan Clean Water Corps (MiCorps): This Michigan Department of Environmental Quality-led partnership consisting of the Great Lakes Commission, the Huron River Watershed Commission, Michigan State University and Michigan Lake and Stream Associations conducts volunteer based inland lake and stream water quality monitoring throughout the state of Michigan. This unique and effective partnership brings you the Cooperative Lakes Monitoring Program. To find out more about the Michigan Clean Water Corps please visit www.micorps.net.

Michigan Inland Lakes Partnership: The primary mission of the Michigan Inland Lakes Partnership is to "promote communication and cooperation between partners, communities and citizens interested in the management of Michigan's inland lakes..." Members include a wide diversity of government agencies, businesses, Native American Nations and non-profit advocacy groups. To learn more about this promising partnership, please visit www.michiganlakes.msue.msu.edu.

Michigan Natural Shoreline Partnership: The mission of the Michigan Natural Shoreline Partnership is to promote natural shorelines through use of green landscaping technologies and bioengineered erosion control for the protection of Michigan inland lakes. To learn more about how to preserve and/or restore your riparian shoreline, please visit www.shoreline.msu.edu.

Michigan Waterfront Alliance: The Michigan Waterfront Alliance (MWA) is a nonprofit corporation formed to protect, preserve and promote the wise use of inland waters of the State of Michigan. This mission will be accomplished by active participation in the legislative process, court cases and/or involvement with related agencies or departments. This membership corporation is closely aligned with the Michigan Lake and Stream Associations and has the ability to influence legislation through lobbying (an action not allowed by the ML&SA, a 501(c)3 organization). To learn more about the Michigan Waterfront Alliance, please visit www.mwai.org.

Michigan Lake and Stream Associations is also proud of our close working relationship with Michigan State University Extension, MSU Department of Fisheries and Wildlife and the Paul H. Young Chapter of Michigan Trout Unlimited in presenting the Lake and Stream Leadership Institute, an outstanding program designed to develop and encourage community-based inland lake and stream resource leaders. Visit the Lake and Stream Leadership Institute web site for more information at http://web1.msue.msu.edu/waterqual/lakeleaders.html.

MiCorps
Monitoring Michigan's Water Quality

Paul H. Young Chapter of Trout Unlimited

Michigan Waterfront Alliance

Michigan's Riparian Communities and Associations

MICHIGAN STATE UNIVERSITY

Michigan Inland Lakes Partnership

Department of Fisheries and Wildlife • Michigan State University

MICHIGAN STATE UNIVERSITY EXTENSION

FEATURE

A Look at the Values of A Lake

Everything From Tourism to Natural Resources

By Joseph M. Turner
CEO, Michigan Property Consultants

PART 1: INTRODUCTION

Did you ever wonder what the total value of your favorite lake is? If so, you've got company. The list of persons needing to determine at least one of the many values associated with lakes is long. It includes:

- those determining the value of natural resources for parks or environmental protection
- economists and tourism experts calculating the value a lake adds to a local economy
- government decision makers comparing losses associated with proposed changes to an ecosystem with benefits to be gained
- those deciding if financial resources required to remove dams or in the reverse, to create or retain impoundments, are justified
- special assessment administrators determining special assessment district boundaries and tax burdens for a special assessment levy

So, there are times when studying the value of a lake is not merely idle curiosity but a requirement. After all, water features generate big bucks. Many lakes are economic development engines, fostering agriculture, power generation, recreation and tourism, higher tax revenues and sustaining and creating jobs. An international study of dammed river systems (2005) found that catchments (impounded areas) have "about 25 times more economic activity per unit of water than do unaffected catchments."

In the June 1997 issue of *Watershed Protection Techniques*, Tom Schueler wrote an appropriate summary for considering the value of a water resource. He said, "... society measures the value it places on these resources every day, in terms of property values, real estate premiums, lease-up rates, storm water utility fees, construction costs and volunteer hours donated. While we may never know the true value of a stream, the research reviewed in this article clearly suggests that society does not value them lightly."

The purpose of this article is to provide a general review of the main forms of value that might be associated with a natural feature, a lake. The focus is on values commonly discernible by real estate appraisers, financial experts and experts in public trusts and governance. The values generated are expressed as cash equivalent "present values." Almost everyone understands the idea of the "present market value" of real estate. However, since investors often pay cash to receive a stream of money over a time period (e.g. the sale of active mortgages) and lakes routinely generate certain cash flows; the income streams used herein are converted to their cash equivalent present values.

VALUES ASSOCIATED WITH A LAKE

Lakes create value in affected properties and lakes have value themselves. Of the two types, some values (real estate affected by a lake) are well known and easily understandable. Others are identifiable (ecosystem values) but very difficult to measure. Economists, Michigan's courts of law and valuation experts may employ differing definitions of value. Therefore, this article will focus on major values commonly agreed upon to be associated with a lake and expected to be acceptable by Michigan's courts for special assessment apportionment purposes.

It is proposed that a lake has three major discernable value components: (1) the "enhanced" market value extended to real estate; (2) various kinds of cash flows arising directly because of the lake (e.g. higher property taxes and expenditures by non-resident visitors); and (3) biological, chemical and physical ecosystem functions valued by humans in cash equivalent terms. Each of the components exert an independent financial influence over a unique and distinct geographical area.

GEOGRAPHIC DISTRIBUTION OF VALUE – REAL ESTATE

All real property has value created from within and value arising from outside influences. Among the first to argue this point was Frederic Olmstead, an administrator of New York City's Central Park. Influenced by European beliefs, he used data from Central Park to argue property values increased when a park was nearby. Modern research has explored and confirmed his belief.

To examine external influences on real estate, let's first review internal values. Consider a newly built home. The internal value of a new residence may be found by adding the cost of the land to the cost of building the structure to the cost of other improvements and to a contractor's profit.

However, this cost-derived internally generated value is modified by the neighborhood of the home. For example, if two identical homes were built in different neighborhoods; the more expensive neighborhood generally increases the market value of a home placed within it. Poorly maintained neighborhoods bring down value. This form of price difference illustrates an external influence.

External value influences on real property are measured in two standard ways. A professional appraiser extracts the amount of value attributable to an outside influence by comparing similar properties with and without the influence being studied. This is called using paired associates. A statistical modeling technique known as multiple regression analysis is also commonly used in estimating contributory values from external as well as internal value influences. The example given above deals with a residential property. Similar external effects exist for all classes of real estate.

Studies of external value influences have been collected in a monograph titled

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FEATURE A Look at the Values of A Lake

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The Proximate Principle by Professor John Crompton. A section authored by Sarah Nicholls, PhD., of Michigan State University, shows that a body of water and other natural features affect the value of real estate for some distance. Influences on residential property commonly extend to at least 2,000 feet.

Sometimes the influence of a lake extends farther. In Chicago, a study of apartment rental rates (as they related to distance from Lake Michigan) found water influenced market values at distances much farther than 2,000 feet. Other research demonstrates views of natural features significantly affect property values or rental rates a great distance from the feature. Dr. Nicholls summarized the research related to the proximity of water: "premiums associated with waterfront location have varied from 9% to 147%, with figures exceeding 50% not being uncommon."

To the untrained, contrary to academic research, the value influence of a lake is commonly perceived to affect only a small area: properties with frontage on water, property with deeded access to water, and property with convenient access to water. This is an oversimplification. Both common sense and economic evidence recognize that commercial or other distant properties enjoy a flow of money directly from tourists and visitors to a body of water. Their expenditures sustain jobs, affect property rents, occupancy rates and values and the overall fiscal health of entire communities.

GEOGRAPHIC DISTRIBUTION OF VALUE - CASH FLOWS - DIFFER DEPENDING UPON PROPERTY TYPE

Geographic distribution of a value influence varies by the type of property and entity affected. The idea of location, location, location applies to each class of property, but with different rules.

Often, the geographic area of the fiscal impact of a natural feature on residential property will be smaller than the area of effected business properties. The contribution of a natural feature to a residential property value is related to the principles of substitution and scarcity. How easy is it to acquire property near water and how much would it cost for a comparable property? Residential values are driven by a buyer's desire to possess and use the amenities of an available natural resource.

Businesses are driven by profit and the driving amenity is cash. Here value is not directly a view or experiencing nature, but the contributory value to the business location of any cash flow arising from the natural feature. Because investors have cash flows from many sources available to them, the primary economic principle is one of increasing and decreasing returns rather than scarcity.

Think about the value of a farmer's produce stand along a busy roadway. Such a building is relatively small, inexpensively constructed and used only in the summer and fall. Yet, because its location, it may generate thousands of dollars from the sale of produce. Business property values increase where there are higher potential cash flows. There, property owners can demand higher rents and businesses earn higher profits. Natural features draw people with cash to spend. Thus, value enhanced business properties consist of locations along travel routes or clusters of properties lying in or near destination points that are important to visitors and residents. Business properties may be physically farther away from a natural feature than residential properties and still be influenced.

The geographic distribution of value to government units (communities) from a lake is tied to new or enhanced cash flows. What are some common forms of government revenue associated with a natural feature? Property taxes are the most well known. There may also be revenue from consumption, sales or income taxes directly linked to economic activity arising uniquely and specifically from the lake or another feature. Consequently, a map of communities benefitting almost always encompasses a greater area than a map of only affected real estate.

The 55th Circuit Court in Gladwin, Michigan, concurred. In a 2005 ruling, it declared four groups to be "materially and substantially" affected by a lake: "people who boat and/or fish, bathers, swimmers and skiers."... "The legislative government of the county" ... "the Department of Natural Resources" ... and "downriver owners of real estate and the taxpayers, not only in the special assessment district, but throughout the county who are affected economically." Testimony given the court described the area to which increased taxes flowed as consisting of taxing units in two counties. The area influenced was big and so were the dollars. Gladwin County is more than 500 square miles in size. Testimony of business owners and experts linked cash flows of $7,500 to $10,000 to non-resident owned property on or near the lake. Totaling over $2.25 million, their purchases sustained or created 25 to 30 jobs for every million dollars spent. It is easy to understand why it is important to identify, quantify and associate a duration of revenue streams with a lake or other feature.

GEOGRAPHIC DISTRIBUTION OF VALUE - ECOSYSTEMS - WHO VALUES THEM?

If buyers and sellers establish property values, and visitors and business owners determine the value of cash flows, who will speak for the ecosystem? What is the value of saving a forest or a species of fish or of maintaining wetlands for migrating fowl? What is the value of protecting an ecosystem from flood damage?

That there is value is certain. However, estimates of the value of a natural resource are fraught with uncertainty and dispute. Ecosystem valuation is the domain of economists and highly trained specialists. We know values are identified from damage in addition to market transactions. Michigan DNR employee Michael Jury recently pointed out that a flood from a broken dam not only "wipes out property," but a flood "wipes out a river" and it "wipes out benthic" (organisms living in a stream or lake bottom). There actually are several value measurement techniques in use today.

According to Professors Dennis King and Marisa Mazzotta, economists "measure the value of ecosystem services to

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FEATURE A Look at the Values of A Lake

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people by estimating the amount people are willing to pay to preserve or enhance services." These services are created from the functions of an ecosystem. Function means the biological, chemical and physical processes performed by the ecosystem. These include flood control, groundwater recharge, wildlife habitat and the purification of air and water. "Functions" are value neutral. "Services" are taken to mean benefits from an ecosystem's functions to which a value may be estimated. Though economists and other professionals have struggled, today there seems to be agreement that for an ecosystem: "total economic value is the sum of all the relevant use and non-use values for a good or service."

Over the past half-century, enough credible research has been done to establish a proper basis to identify value components and create a framework within which they can be viewed. Research has been augmented by court decisions which more clearly define valuation methods and the type of facts necessary to arrive at proper conclusions. It is not the intent of this article to explore the differences in valuation methodologies used by experts. Instead, we'll use a hypothetical lake and hypothetical values to highlight value components. The goal is to share background information with the reader.

Oh, ordinary citizens and economists often see the concept of value differently. Most people perceive value as what something would sell for. Drs. King and Mazzotta address this issue, saying:
"It is often incorrectly assumed that a good's market price measures its economic value. However, the market price only tells us the minimum amount that people who buy the good are willing to pay for it. When people purchase a marketed good, they compare the amount they would be willing to pay for that good with its market price. They will only purchase the good if their willingness to pay is equal to or greater than the price. Many people are actually willing to pay more than the market price for a good, and thus their value exceeds the market price."

PART 2: PUTTING THE THEORY TO WORK - AN EXAMPLE OF ASSEMBLING VALUES

Let's set the stage to value a hypothetical lake. Assume a lake of about 300 acres. Assume the lake has homes with water frontage that are homesteads of permanent residents – say one-third of the structures on the lake. Assume the lake has cottages and other secondary residences used by their owners from time-to-time – say two-thirds of the structures on the lake. Assume there are about 600 parcels of land surrounding the lake and the lake frontage is entirely used for residential purposes except for public access areas and wetlands. Assume the lake has public boat launches and is used by the public for fishing, hunting and boating, swimming and other recreational purposes.

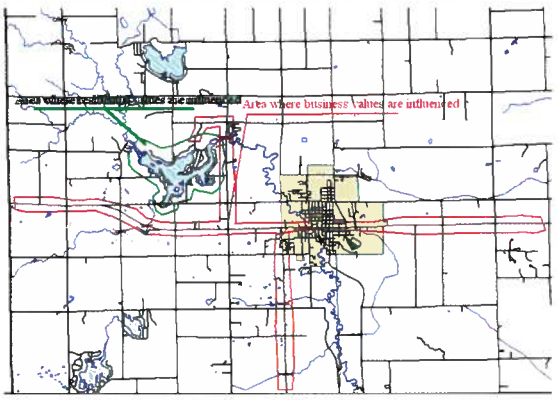

Figure 1 – Affected properties by use. *Drawing by Jeff Klopcic*

Assume a small community is located less than five miles from the lake. It is here that real estate agents, title companies, lawyers, home improvement contractors, carpet and furniture dealers and a number of other retailers and wholesalers conduct business. Geographic distributions of value are illustrated in the drawing. The green circle around the lake represents residential properties located within a quarter mile of the lake which receive an enhancement of their property values.

Areas from which expenditures of one kind or another create cash flows arising directly from the existence of the lake are outlined in red or green. Annual property taxes arise from within the green line surrounding the lake. The red line also surrounds major areas of travel to and from the lake and common destination points in the central business district of the closest community. Businesses there receive a substantial cash flow. With these assumptions we can begin to use Michigan's laws, analytical rules and best practices of experts to figure out what the hypothetical lake's value might look like.

A TABLE OF VALUES

The table at the end of the article lays out four areas of analysis: real estate values influenced by the presence of the lake; periodic cash flows arising uniquely and specifically from the lake; the value of commercial harvest from the lake (fish and wildlife) and the value of the (lake) as a publicly owned property held in trust by the government for the people.

It should be clear that in the illustration, examples of commercial harvesting of wildlife is intended to be a cash flow separate from recreational use of the lake. Just as commercial fish are harvested from the great lakes and fur bearing animals are trapped for pelts and other creatures are harvested for commercial purposes, the table shows the present value of several small commercial harvests at this lake. The value of that economic activity is separated from recreational uses.

REAL ESTATE VALUES IN TABLE

Methods of estimating real estate values have become standardized through court decisions and professional practices. In this hypothetical situation, we are looking at the total value of all real estate and not focusing on a specific parcel or parcels. Assume the aggregate property value within the geographical area outlined by a green circle on the drawing has doubled as a result of the lake. These are 600 residential properties with a current market value of $50 million and an identical aggregate State Equalized Value and Taxable Value of $25 million. Since values doubled, $12.5 million of the Taxable Value is directly attributed to the presence of the lake and $12.5 million would exist without the lake. Four hundred proper-

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ties are owned by non-residents and pay a higher millage rate.

There are no business properties located directly on the lake or in the area where proximity to water is a driving market force. Therefore, only cash flows to the businesses, property rental rates and vacancy rates need analysis. Surveys from visitors and non-resident property owners measure annual expenditures to local businesses. They reveal the geographic area where visitors spent their money. Surveys of business owners reveal the importance of the lake to various types of businesses. Quantifying local purchases by non-residents and determining the impact of the lake on local business rental and vacancy rates enables one to impute changes in business property values.

There have been wetland acquisitions across the state by conservation groups and there has been the construction of new wetlands by developers needing to satisfy environmental laws. Studies of the value of wetlands have been performed by economists. Examples include work sponsored by Michigan's DNR, Ducks Unlimited, the Saginaw Bay Watershed Initiative and others. This example uses such information and standard real estate valuation practices, to estimate the value of the wetlands created by the hypothetical lake. This hypothetical value was estimated at $3,000 per acre.

Cash flows shown in table and their Cash equivalent Present Value

Periodic cash flows are routinely converted into a "present value." The conversion is based upon the idea investors will pay cash now to receive some future series of cash payments.

What is a "Present Value" of a cash flow as used in the example?

Let's suppose someone owed you money and repayment would be at the rate of $100 due at the beginning of every year for five years. Under this arrangement, if you deposited the payment in your credit union at the beginning of each year you'd collect 5 percent interest at the end of the year. In January of the first year you receive your $100 and deposit it in the credit union. At the end of the first year you earn $5 interest and you deposit another $100 on the first day of the second year. Now you have $205 in the credit union. The $100 first payment, the earned interest and then the new second year payment. At the end of year two, you are paid interest of 10 dollars and 25 cents. Now you have $215.25 and you add $100 to it. Continuing this process, at the end of the fifth year, you will have $580.19. The cash flow at 5 percent interest is okay, but you want cash now.

What if someone were to offer you $580 cash today and they would collect the money over the five years? You might accept the offer. They offered what you could expect to receive and you wouldn't have to wait. But they want to make a profit, so instead they offer to pay only $525. Should you take it? You might, just because a bird in the hand is worth two in the bush. Maybe the interest now would be only three percent for a $525 deposit and you'd rather have the five percent. This is the principle behind finding the present value of a cash flow. Alternate rates of return are examined and the opportunity to receive cash now versus parts of the whole over time is evaluated.

Investors have choices. In the example used here, it was assumed 2 percent interest would be paid yearly, cash flows would continue for 20 years and the flow was unchanged over time.

Cash flows – new revenue from property taxes

For considerations in this example, annual property tax revenue flows throughout the entire county from collections of a county tax for operating and from a county tax to support public safety. Other property tax collections go to local units of government. The majority of property tax collections flow to the host county, portions are sent to an adjacent county for a community college (10%) and to the state of Michigan for education (15%).

If this were a real situation and the lake were gone, some amount of base tax collection would still take place. Therefore, calculations of cash flow from property taxes does not include the hypothetical "base" taxes ($12.5 million) discussed earlier. Those taxes would exist without the lake being present. In the table, only "enhanced market value" and taxes related to it are shown. The total market value of property affected by the lake contains an enhancement of $25 million of real property and an extra $5 million of business property. Total market value in the example is $60 million - $50 million (residential) and $10 million (business).

With property values addressed, we can look at the impact of millage rates on tax collections. Michigan laws have two overall millage rates that are to be used to calculate taxes: a "homestead" and a "non-homestead" rate. A lower millage rate is used for those who "reside" in a structure and a higher millage rate is applied to those who are non-residents; say someone who had a cottage up north. The millage rates generate distinct and separate cash flows. Qualifying "homesteads" pay about 18 mills less than non-resident property owners. The "non-homestead" rate charged to business and other non-qualifying classes of property includes certain school taxes.

To calculate taxes attributed directly to the lake, 22 mills is applied to the $12.5 million of taxable value for residential and business properties "enhanced" by the lake. Remember, two-thirds (400) water enhanced properties owned by non-residents pay an additional 18 mills.

As an aside, an argument could be made that if the water were not present, far fewer properties would be owned by non-resident owners. If that were the case, then there would be far fewer properties paying the additional 18 mills. Without the lake taxes collected by taxing authorities would go down for two reasons: (1) property values would drop; and (2) more non-resident properties would become "Homesteads" entitled to relief from the 18 mill burden. The point is, calculations used to arrive at the hypothetical value are conservative.

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Please see the upcoming Spring issue of The Michigan Riparian for Part Two of this "A Look At the Values of a Lake," which will explore new revenue and non-tax cash flows, as well as the value of the ecosystem and tourism.

The Houghton Lake Management Plan

By Dick Pastula, *Secretary, Houghton Lake Improvement Board*
and **Tony Groves,** *Water Resources Practice Leader, Progressive AE*

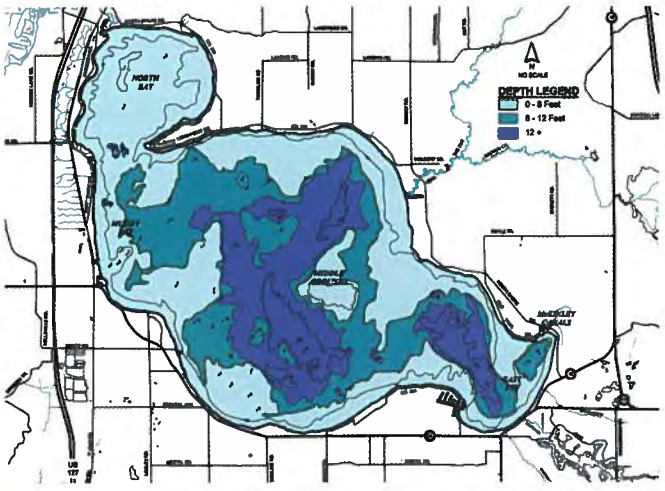
Introduction

With a surface area of 20,044 acres, Houghton Lake is Michigan's largest inland lake. It covers about one-quarter of Lake Township and sizable portions of Denton, Markey, and Roscommon Townships in Roscommon County. However, despite its vast area, the lake is relatively shallow. Houghton Lake has a maximum depth of 21 feet and an average depth of less than nine feet. Thus, Houghton Lake contains extensive shallow waters suitable for rooted plant growth.

How do other lakes compare?

Lake	County	Acres
Torch Lake	Antrim	18,770
Mullett Lake	Cheboygan	17,360
Lake Charlevoix	Charlevoix	17,260
Burt Lake	Cheboygan	17,120
Lake Gogebic	Ontonagon and Gogebic	12,800
Manistique Lake	Mackinac and Luce	10,130
Crystal Lake	Benzie	9,711
Higgins Lake	Roscommon	9,600
Hubbard Lake	Alcona	8,850
Hamlin Lake	Mason	4,990
Glen Lake	Leelenau	4,865
Walloon Lake	Charlevoix and Emmet	4,320
Lake Mitchell	Wexford	2,580
Lake St. Helen	Roscommon	2,390
Lake Missaukee	Missaukee	1,880

In recent years, whole-lake surveys have been conducted to determine the type and distribution of plants in Houghton Lake. **Of special concern is a plant called Eurasian milfoil** (*Myriophyllum spicatum*). Eurasian milfoil is an invasive aquatic plant that was first introduced to the United States in the 1940's. Although it is an exotic species, it is currently widespread in the state. Eurasian milfoil is problematic in that it often establishes early in the growing season and



can grow at greater depths than most plants. Eurasian milfoil can proliferate and spread via vegetative propagation, in which small pieces break off, take root, and grow. It often forms a thick canopy at the lake surface that can seriously hinder recreational activity. Eurasian milfoil generally provides poor fish habitat when compared to native plant species. **Once introduced into a lake, Eurasian milfoil may out-compete and displace more desirable plants and become the dominant species.** During the 1990s, Eurasian milfoil spread throughout much of Houghton Lake. By 2001, Eurasian milfoil infested nearly 11,000 acres of the lake and was common to dense in approximately 5,300 acres of the lake.

Recognizing the need to effectively manage Houghton Lake, the Houghton Lake Improvement Board was established in 2000 under provisions of Michigan's Natural Resources and Environmental Protection Act. In accordance with state law, the lake board is composed of a representative of each of the four townships that border the lake, a county commissioner, the county drain commissioner, and a lakefront property owner. Several members of the Houghton Lake Improvement Board are lake residents. The Lake Board has made the coordinated management of Houghton Lake possible.

In 2001, the Houghton Lake Management Feasibility Study was prepared for the lake board (Smith et al. 2001). The study included a description of the physical characteristics of Houghton Lake and its watershed, an evaluation of water quality conditions, a discussion of the fishery in Houghton Lake, and detailed mapping of aquatic vegetation. Various alternatives were identified to control the spread of Eurasian milfoil in Houghton Lake. Study findings were the basis for the Houghton Lake Management Plan. **Key components of the plan include invasive species control, aquatic plant surveys, information and education, water quality monitoring, watershed management, and fisheries management.**

After many public meetings and hearings to obtain input from residents, the lake board approved the plan and established a special assessment district to fund the project. The special assessment district includes all property bordering the lake and businesses located near the lake, over 5,000 properties total. The first phase of the management plan began in 2002 with a whole-lake treatment for milfoil control.

Milfoil Control

Houghton Lake contains abundant aquatic vegetation. Over 25 different plant species have been observed in the lake and about half of the lake contains plant growth (Progressive AE 2009). Aquatic plants are important in the lake in that they help to stabilize bottom sediments, produce oxygen, and

Eurasian milfoil
Myriophyllum spicatum

Aquatic plant line drawing is the copyright property of the University of Florida Center for Aquatic Plants (Gainesville). Used with permission. *cont'd on pg 17*

The Houghton Lake Management Plan

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provide valuable fish habitat and cover. The objective of the plant control effort in Houghton Lake was to selectively control the nuisance plant Eurasian milfoil without significantly impacting beneficial plant species. **Because of its ability to spread by fragmentation, mechanical harvesting is generally not recommended to control Eurasian milfoil.** Most often, Eurasian milfoil is controlled via the application of a systemic herbicide. Systemic herbicides kill the entire plant, unlike contact herbicides that leave the roots intact. In 2002, Houghton Lake was treated with a systemic herbicide called fluridone (trade name Sonar®) to control Eurasian milfoil.

Houghton Lake in 2000 before Sonar®AS treatment. Source: ReMetrix, LLC

Houghton Lake in 2002 after Sonar®AS treatment. Source: ReMetrix, LLC

The treatment was conducted using Michigan's "6-bump-6" protocol. With this approach, Sonar is applied at an initial concentration of 6 parts per billion. The dose is calculated based on the volume of the upper 10-foot strata of water in the lake. About two weeks after the initial treatment, the concentration of Sonar in the lake is measured and the lake is treated again to bring the concentration back up to 6 parts per billion. This approach provides selective control of Eurasian milfoil without significantly impacting most other plant species. **Eurasian milfoil declined from more than 11,000 acres before the Sonar treatment to 32 acres one-year post treatment.** Extensive sampling of Houghton Lake was conducted under the direction of U.S. Army Corps of Engineers to monitor treatment impacts. The results of sampling in 2002 indicate that water quality in Houghton Lake remained similar to the 2001 pretreatment condition (Heilman et al. 2003). No algae blooms or dissolved oxygen depletion occurred in Houghton Lake.

Since the Sonar treatment was completed in 2002, vegetation surveys of the entire lake have been conducted each year to evaluate plant species composition and to identify the location of Eurasian milfoil beds (Progressive AE 2009, Remetrix, LLC 2008). Spot-treatments with herbicides have been performed annually to prevent Eurasian milfoil from regaining dominance in the lake. Since the Sonar treatment, measures to control Eurasian milfoil have been limited to relatively small portions of the lake. **In 2009, seven years after the Sonar treatment, less than 9% of Houghton Lake required treatment.**

Information and Education

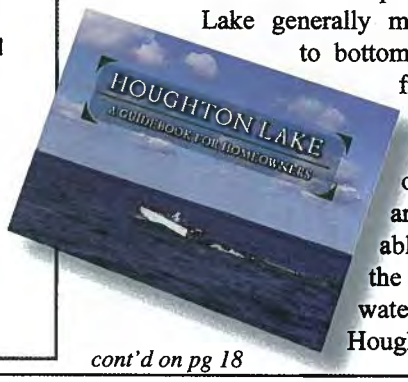
Information dissemination has been an important component of the management plan. Each year, all property owners in the district receive a newsletter that describes current project issues and activities. The lake board meets monthly during the summer months and all lake residents are notified regarding meeting dates and locations. The lake board provides regular project updates via e-mail to over 600 interested parties.

The lake board has posted large signs at public launch facilities around the lake with guidance on how to prevent the spread of invasive species in Houghton Lake.

In 2006, The Houghton Lake Improvement Board produced a publication entitled Houghton Lake – A Guidebook for Homeowners. The guidebook contained information on the ecology of Houghton Lake and its watershed, and provided lake protection guidelines to all homeowners in the special assessment district. **The Houghton Lake Improvement Board has developed a web site with a wealth of information about Houghton Lake (houghtonlakeboard.org).**

Water Quality

For the past several years, samples have been collected from Houghton Lake on an annual basis to evaluate baseline water quality conditions (Progressive AE 2009). Due to its shallow depth, Houghton Lake generally mixes surface to bottom during ice-free periods. Thus, the lake is well-oxygenated and fish are able to inhabit the entire water column. Houghton Lake



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HOUGHTON LAKE AQUATIC PLANTS

Arrowhead	Large-leaf pondweed	Two-leaf milfoil
Bladderwort	Nitella	Variable pondweed
Bulrush	Richardson's pondweed	Variable-leaf pondweed
Chara	Robbins pondweed	Water marigold
Coontail	Sago pondweed	Water stargrass
Curly-leaf pondweed	Slender-leaf naiad	Whitestem pondweed
Elodea	Small pondweed	Wild celery
Eurasian milfoil	Southern naiad	Wild rice
Flat-stem pondweed	Starry stonewort	
Illinois pondweed	Thin-leaf pondweed	

The Houghton Lake Management Plan

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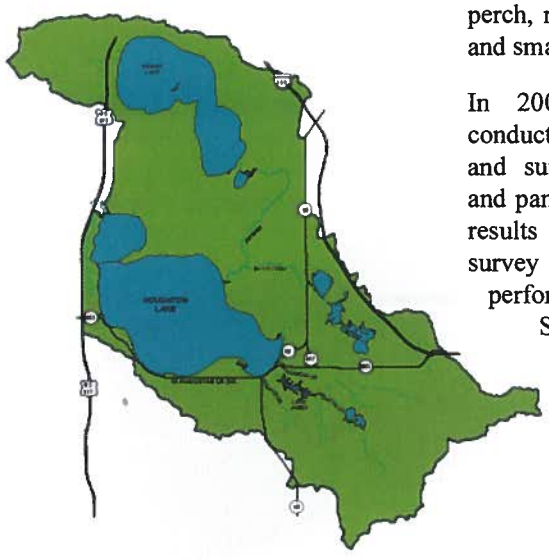
has an exceptional warm-water fishery. However, the lake is too warm during the summer months to sustain cold-water fish such as trout. Phosphorus levels in the lake often exceed the eutrophic threshold concentration of 20 parts per billion, but algae growth in the open waters of the lake is generally moderate. As a result of wind-induced turbidity and natural tannins in the water, water transparency in Houghton Lake is generally less than ten feet.

Watershed Management

The land area surrounding a lake that drains to the lake is called its watershed or drainage basin. The Houghton Lake watershed is 172 square miles in area, a land area over five times greater than the lake itself. Houghton Lake receives drainage from Higgins Lake via the Cut River and four major tributaries: Knappen Creek, Denton Creek, Spring Brook, and Backus Creek. The Houghton Lake watershed encompasses all or part of 13 townships.

Over the long term, Houghton Lake's water quality will be influenced by land use activities in its watershed. Fortunately, much of the watershed is state-owned land and consists of forested areas or wetlands. By filtering runoff, forests and wetlands in the watershed help to preserve water quality. With the construction of a sanitary sewer system around Houghton Lake in the 1970's, a primary source of pollution input to the lake was eliminated. However, much of the land adjacent to the lake has been urbanized and stormwater and fertilizer runoff are a concern.



To address this concern, watershed management efforts focused on the following:

- The watershed was mapped in detail to identify land use, soil types and drainage characteristics.
- The shoreline was surveyed and all stormwater outfalls to the lake were identified and mapped.
- Watershed management guidelines for lakeside landscaping, fertilizer use, and stormwater management were provided to all area homeowners.
- An ordinance that restricted the use of phosphorus fertilizers was drafted by the lake board and adopted by Roscommon County and all four townships bordering Houghton Lake.
- Watershed management information is disseminated annually to all lake residents.
- Roscommon County is working on developing county-wide stormwater guidelines.

Fisheries

Houghton Lake has a prized fishery. Since the 1930's, the Department of Natural Resources has identified 39 different species of fish in Houghton Lake including sunfish, perch, northern pike, walleye, largemouth and smallmouth bass.

In 2007, MDNR Fisheries Division conducted fish surveys during the spring and summer to evaluate both predator and panfish populations in the lake. These results were compared to historical fish survey results including a fish survey performed in 2001, the year before the Sonar® treatment. Based on the 2007 survey results, MDNR Fisheries Division concluded:

> Bluegill sizes and growth rates ranged from Satisfactory to Superior in all years between 1972 and 2007. Catch rates in trap nets have increased steadily since 1983. This is inconsistent with angler reports of poor bluegill catches during recent years. Other panfish also appear to have good size structure and large mean sizes. The panfish populations appear in good condition with no substantial changes since 1972.
>
> Overall, the fisheries of Houghton Lake are dominated by panfish, walleye, and northern pike. The 2007 survey indicates stable or increasing abundance of these species. Substantial changes in growth rates and sizes were not evident.

Community

By the late 1990's, the growth of Eurasian milfoil had reached a level that seriously impacted the Houghton Lake community including residents, businesses, boaters, and anglers. Vast beds of milfoil fouled propellers and impeded navigation, while floating mats of milfoil along the shoreline further impaired use of the lake. Since implementation of the Houghton Lake Management Plan, conditions in the lake have improved dramatically. Eurasian milfoil growth is largely controlled, a wealth of data has been collected on Houghton Lake and its watershed, and long-term management strategies are being implemented. **The lake board made it possible for lake residents and all local governmental units to work together to successfully manage Houghton Lake.**

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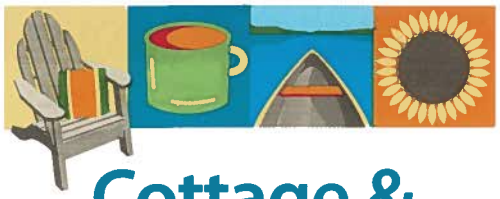

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EDITORIAL:
WHEN DO WE MAKE THE CHANGE?

The past has made us what we are. Cities and villages, heavy concentrations of people, have always created a waste disposal problem. The problem is that our lakes and streams have been the primary dumping ground for getting rid of waste materials and those materials poison our waters. Substances that pollute our waters fall in two categories; excessive nutrients and outright poisons.

Excessive nutrients appear when surplus, or scrap, foods are put through a garbage disposal unit and enter the water supply. The nutrients are not removed at a waste water treatment plant. Nutrients are also added to the water supply from feces and urine flushed through our toilets. In addition, the medicines not absorbed by the body are dumped in our toilets. These are not extracted at a waste water treatment plant. Indications that some fish have changed sex because of drug contaminants should come as a warning sign that we are not handling our wastes effectively.

Poisons come from a variety of industrial plants. Each industry has its own special set of chemicals used in processing materials. What is not used becomes part of the water supply or heavily contaminates the ground. Even that which ends up in the ground can eventually find its way to the ground water and pollute an entire aquifer.

Paracelsus, often called the father of toxicology, said in the 16th century, "All things are poison and nothing is without poison, only the dose permits something not to be poisonous." That is to say, substances often considered toxic can be benign or beneficial in small doses, and conversely an ordinarily benign substance can be deadly if over-consumed. Even water can be deadly if overconsumed.

The problem is clear; pollution is rampant because of our carelessness in controlling the amounts of certain readily identifiable substances allowed in our water supply. Most of the pollutants have been identified, but little action has been taken regarding control of these pollutants.

Research is needed to develop new methods of disposal; chemical entrapment of pollutants, or chemical breakdown of pollutants; stop using our water supply as a universal disposal system; develop a system that is not sewer dependent; recycle everything — nutrients reclaimed and used as fertilizer, recycle all metals, convert all plastics to harmless residue, eliminate land fills and ocean dumps; stop population growth.

It should be clear that anti-pollution should be our greater concern. We cannot even think that economy of operation should be a consideration, yet every bit wasted is a lost profit. If we are to survive, we must recycle everything. We must have zero waste going into the environment. To understand nature's recycling processes is key to our own future recycling methods. The cost is irrelevant. We must change our ways. They should be changed now, but how long — a decade; a generation; many generations? It's up to you.

– Delavan Sipes
MLSA Newsletter Editor

WATER RIGHTS

Wayne Groesbeck writes about water rights in the July '09 issue of "River View," which is the Muskegon River Watershed Assembly newsletter (MRWA). He raised the question of whether water was free, or a tradable commodity belonging to the person with the deepest well. He surmised that most people reading River View would put water on the "public trust" side as opposed to "private ownership." Then he states that "in our time and place "public trust" means government, where the will of the public gets played out. What are the implications of government managed water? Many and heavy."

Groesbeck continues, ". . . in Michigan, allocation of water is a new issue; to our West, this is not the case. In the days of westward expansion, access to water often involved an exchange of gunfire. More recently public trust has gained ground on private ownership, replacing gunplay with lawsuits. The classic example of the problems involved is the management of the Ogallala Aquifer, which lies beneath the Texas panhandle and large parts of Oklahoma and Colorado. These three states, in a series of negotiations, divided water drawn from the aquifer among agricultural, industrial, and residential users. Within a few years, the calculated amounts proved to be highly unsustainable. Have they been adjusted? Basically, no. The three user groups quickly expanded to the degree allowed, and their lawyers have demonstrated harm if any of the allocations are reduced. Meanwhile the aquifer is headed for oblivion.

Farther south in Texas, huge vacant housing developments await the prospect of water, while the Rio Grande fails to reach the Gulf of Mexico 10 weeks of the year due to upstream diversion. Colorado's Supreme Court recently ruled on a case to determine whether people could have rain barrels. The issue was whether the rain on their roofs had already been allocated to someone else; the principle of "Public Trust" isn't always simple.

Part of the problem is that jurisdictions don't correspond to watershed or aquifers. The MRWA estimates that all or part of 150 municipalities fall within the Muskegon River watershed, each with its own combination of zoning ordinances, stormwater regulations, and setbacks (or lack of same).

The MRWA ventured into the murky waters of "Public Trust" in 2005 with the Muskegon River Education Project (funded by Clean Michigan Initiative). It focused on Brooks Creek, a small, sensitive high quality tributary. Partners in the project were Grand Valley State University (GVSU), the townships of Bridgeton, Garfield, Sherman, Sheridan, and Dayton, along with the City of Fremont.

The MRWA and GVSU formulated and analyzed a questionnaire for watershed residents to assess their awareness and opinions of the issues. Partners facilitated a series of meetings between municipal officials and LSL Planning, Inc. The purpose was not necessarily to have identical ordinances; an urban area will have different issues than a suburban or rural one. Municipalities should not, however, be working at cross purposes, and their practices should be conserving and sustainable.

Similar projects will need citizen support, because the West's issues are moving inexorably eastward.

– From "River View" Vol. II No. 22; Original article written by Wayne Groesbeck. Minor omissions have been made

WHAT'S A FISH HATCHERY?

The State of Michigan raises fish to plant in our lakes. Learn more at the Wolf Lake State Fish Hatchery, 34270 County Road 652 in Mattawan, MI, six miles west of U.S. 131. The Hatchery offers seasonal tours and educational programs available to the public. The visitor center offers topics of interest to anyone interested in fishing, nature, birding, hiking and green gardening. For more information on tours and offerings call 269.668.2876 or go online to www.michigan.gov/dnr, click on "fishing" and then click on "fish hatcheries."

TRI-COUNTY SCHOOLS FISH DAYS

Need an idea for community participation? Maybe "Fish Days" at Winfield Lake in Montcalm County can work for you. The Muskegon River Watershed Assembly (MRWA) partnered with the Tri-County Upper Elementary Schools to conduct two educational and fun "Fish Days" in early May.

Approximately 250 4th- and 5th-grade students, under the leadership of teacher Laura Readle, participated in educational sessions and fished from shore and boats. About 100 parents, grandparents and relatives supervised student groups, helped bait hooks and provided fishing boats. Students were taught how to cast with fly rods as well as conventional rods. Some students dissected fish and learned to identify the various parts of the fish. The MRWA provided funding for the two-day event.

HOW LAKE NAMES GET CHANGED

Just a bit west of Grayling is lovely Lake Margrethe. It was once called Portage Lake. How did the name get changed? The Avalanche, a

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local paper, reported on September 13, 1913, that Mr. and Mrs. Rasmus Hanson were honored at the formal opening of the newly constructed Camp Grayling Officers' Club. The club still stands on Brigade Hill. Many family, friends and military officials used the occasion to show their appreciation for the land gifted by the Hansons to Michigan for the purpose of military training. The Hanson family was also honored when it was announced that Portage Lake was being renamed Lake Margrethe in honor of Mr. Hanson's wife, Margrethe. The name was certified by the state legislature, but many people said it took years before the new name was completely adopted by Grayling area people.

The land that was donated is the National Guard Military Reservation. It is still used for military training each year.

–From "Ripples," published by Lake Magrethe Property Owners Association

WATER WITHDRAWAL FROM RIVERS

After Michigan joined seven other states and Canada in October 2008 in endorsing the Great Lakes Compact, the Pere Marquette Watershed Council (PMWC) took a stand that Michigan's natural rivers should be exempt from commercial water withdrawals. The Michigan law still allows up to a 20% decrease in the lowest flow rate before pumping would be paused. The new law requires that any new or expanded withdrawal of more than one million gallons per day must obtain a Michigan Department of Environmental Quality (MDEQ) permit.

–From "Mainstream," the PMWC newsletter

PMWC ATTACKS ORV LAW

The Pere Marquette Watershed Council objected when Michigan created a new opportunity for vehicles that were illegal to operate on roadways, by legislating that off-road vehicles were now on-road vehicles. The PMWC joined forces with the Lake County Riverside Property Owners Association and urged fishermen, riparians, safety conscious parents, environmentalists, township officials, county commissioners and all others to oppose this law. Approximately half of Lake County townships agreed, especially those townships threaded by the Pere Marquette River and its tributaries. PMWC directors also argued successfully in Mason County, which voted the proposal down at the county level.

–From "Mainstream," the PMWC newsletter

CORMORANTS, GEESE, SWANS, CARP

This spring there were increased numbers of cormorants flying in to Burt Lake. The folks there don't know the ultimate impact, but the birds were flying in by the hundreds — daily, starting with ice out. In recent years the cormorants have been blamed for a reduction in the yellow perch population, but there is not yet evidence to support the claim. No decision has been made as to what to do about the increased cormorant population, or whether anything should be done.

By contrast the goose population on Paw Paw Lake, in Berrien County (southwest Michigan) became sufficiently large that a Canada Goose Roundup was held last year and this. There has also been a Carp Shoot by bowfishers both years to reduce the number of large carp in the lake.

Wolverine Lake, a few miles northwest of Detroit in Oakland County, a crew, authorized by the Department of Natural Resources destroyed swan eggs and nests because of the excess swan population.

These activities are illegal unless a proper permit is obtained from the Department of Environmental Quality. The issue of whether to reduce such populations remains an ethical one, torn between desire for wildlife protection and improving the quality of the water and the shore. Each lake must make its own decision in cooperation with the DEQ.

DEDICATION TO THE FUTURE

Ginny Hluchan writes in the *Hamlin Lake Currents:* "I am hopeful that 50 years from now my children will be grandparents. On a distant sunny day they will stroll down worn and cracked sidewalks under leafy trees and along the sparkling harbor in the Ludington Waterfront Park. They will pause by the sculpture *Hooked on Hamlin* and read the plaque, which states, 'Humans along with wild and natural things make up our irreplaceable, fragile and ever-changing part of the Great Lakes Ecosystem.' They will understand that their heritage pledged preservation and promised an instilled reverence for a place that we love and share. They, too, will be attaching the importance of family time with Hamlin Lake. And, they will note the year 2009 as being that of dedication. Yet they are grateful for it as if in the moment."

Ginny was writing about the newly dedicated sculpture donated by the Hamlin Lake Preservation Society to the Ludington Waterfront Park, but just as surely she was writing about the dream that we all have; that tomorrow will be better for those who follow us; that we shall leave the world in better shape than

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we received it.
–From "Hamlin Lake Currents," the publication of the Hamlin Lake Preservation Society

PERUSING NEWSLETTERS

Reading newsletters from lake, river and watershed organizations across the state shows a common thread of desiring to improve on existing conditions however dire or perfect they may be. Their projects encompass a diversity of interests and objectives. Some have an interest in the history of their lake, or some of the structures on the lake. Some are delving into the chemicals, nutrients and pollutants affecting their water. Many devise a variety of projects to raise money to push their efforts forward. There are those who are in the throes of organizing, or of reorganization to meet changes of conditions or goals. Others foresee potential changes that disrupt their flow of finances and are concerned how they may move forward with confidence.

Water use issues are becoming more and more important as sources of fresh water are diminished or destroyed. Politicians vie for economic advantage for the more powerful of their constituents. Environmentalists want a return to that which is natural. Ecologists strive to understand all ramifications of environmental problems. All such objectives appear to hinge on one word — sustainability. Economic advantage must become sustainable. Restoration of nature must become sustainable. All must be eco-friendly to be sustainable in the long term.
–Delavan Sipes

WHY SWANS DIED

In early March 2009, five swans died on Paw Paw Lake. The MDNR Wildlife Disease Laboratory determined that the swans died from ingesting a fluke, which caused the intestine to hemorrhage. For information about the fluke check the web for: Verminous hemorrhagic ulcerative enteritis. Some other species of waterfowl may be affected.

MLSA VOLUNTEERS

Michigan Lake & Stream Associations is about stopping pollution, improving water quality of our lakes and streams, providing people with information to accomplish these goals, and helping them to get there.

MLSA needs even more volunteers to achieve these goals. Whether you can work a few hours or many, you are welcome. Contact Richard Morey, Volunteer Coordinator, at rdm@sisterlakescable.com or call 269-424-5863.

Everyone can help by becoming members of MLSA. As a member you will receive Michigan's only quarterly magazine dedicated to the goals cited above. Your donations go to help improve our waters. Join now to help, and MLSA will keep you informed of achievements.

Complete the following form and send it to MLSA Treasurer, P.O. Box 57, Lake George, MI, 48633 along with membership dues.

Please print for clarity. Thank you.

_____
Last Name

_____
First name

_____
Street Address

_____ ____ _____
City State ZIP

(_____)_____
Phone

_____
Email address

_____
Lake or Stream or Watershed Association, if any

_____
County in which your association is located

$35.00
MLSA Member Annual Dues

_____
Additional Donation

_____
Total amount included

Thank you for joining Michigan Lake & Stream Associations and contributing to improvement in Michigan water quality.

Weed Whacker

By Clifford H. Bloom, Esq.
Law, Weathers, P.C.
800 Bridgewater Pl • 333 Bridge St NW
Grand Rapids, Michigan 49504-5320

In the Autumn 2009 issue of *The Michigan Riparian* magazine, Howard Wandell authored an informative article regarding Michigan statutory lake improvement boards. In addition, a very successful conference was held by the Michigan chapter of the North American Lake Management Society ("MCNALMS") regarding such lake boards in Tustin, Michigan, on October 16, 2009. This column will build on Howard's earlier article and discuss the relationship between special assessment districts and statutory lake boards regarding aquatic weed control.

Quite often, the largest budgetary item for a lake association is aquatic weed treatment costs. Absent a "strong" association (where the association has the ability to levy mandatory dues, annual assessments, or special assessments for aquatic weed treatment purposes) or a statutory lake board, a lake association with its own aquatic weed treatment program must rely on voluntary dues or donations to fund the program. Furthermore, it is often a hassle for lake association officers to have to deal with an aquatic weed treatment company, make payments for such services, and similar matters. Finally, having a lake association run an aquatic weed treatment program poses certain potential liability dangers for the lake association, as well as its members and officers.

There are three ways under Michigan law to shift the costs of aquatic weed treatments from a lake association to some or all of the taxpayers in the township involved. First, a special assessment district can be created for a lake or lake community pursuant to MCL 41.721 et seq. Second, a statutory lake board can be created with a special assessment district component under MCLA 324.30901 et seq. Finally, a township is authorized to spend monies from its general fund for aquatic weed treatment purposes on a public lake. *See MCL 41.418.* With a special assessment district or a statutory lake board (also known as a "lake improvement board"), the costs of administering and implementing an aquatic weed treatment program are placed on the property tax bills of the owners of lands within a specific special assessment district. MCL 41.418 does not involve a special assessment district or statutory lake board, but simply allows a township board (upon petition by 25 township residents) to contribute funds to aquatic weed treatment efforts for a public lake if the township board so chooses.

As an initial matter, it should be made clear that a special assessment district and statutory lake board are both government mechanisms, which are not controlled by a lake association. Once either a special assessment district or statutory lake board is set up, it constitutes a government function. Of course, where a special assessment district has been created, it is fairly typical for a township board to defer (to a certain extent) to the desires of a lake association or professional consultant on issues such as which weed control applicator should be hired, how long the special assessment district should be in effect, how much each property should be assessed, whether chemical treatments or mechanical harvesting should occur, and similar matters. Nevertheless, the township board is not obligated to follow any requests or recommendations by a lake association, consultant, or anyone else. The same is true of a statutory lake board. Typically, a lake association will have a representative member on the statutory lake board, but that certainly is not enough to control such a board.

What is better for a lake association to pursue for aquatic weed treatments, a special assessment district or statutory lake board? That depends. Special assessment districts tend to be easier to set up, are less controversial, and have lower administrative costs. They are of limited duration. Special assessment districts are best used for simple projects such as aquatic weed treatment programs. But special assessment districts are normally only practical where a lake is located in just one township – if a lake is encompassed by more than one township, each township would have to set up its own separate special assessment district.

Statutory lake boards formed under MCL 324.30901 et seq. can be utilized regardless of whether a single township or multiple townships encompass a lake. Statutory lake boards tend to work better with complex projects such as dredging, dams, comprehensive watershed management programs, etc. Statutory lake boards can have some disadvantages, however. First, they often have higher costs, as lake boards are often more inclined to hire consultants, engineers, and other professionals to advise them. Second, lake associations tend to "lose control," as most members of the lake board are normally not from that particular lake community (by statute, the members of a lake board must include one member of the county board of commissioners for each county involved, a representative of each local unit of government covered by the statutory lake board [or two representatives from the local unit of government if there is only one local government involved], the county drain commissioner, and a lake property owner).

If the lake involved has a lake association, it can submit up to three names to the statutory lake board, from which the statutory lake board chooses one lake landowner to be on the board. Third, once established, statutory lake boards can be difficult to terminate. *See MCL 324.30929.* Finally, statutory lake boards tend to be more political than simple special assessment districts.

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A statutory lake board is initiated by the governing body of the local unit(s) of government where the lake is located, or by the petition of two-thirds of the landowners owning lands abutting the lake. If a private inland lake is involved, the statutory lake board can only be initiated upon the petition of two-thirds of the property owners owning lands abutting the lake. Should one of these initiatory actions occur, the local governing body or bodies must set up a statutory lake board within 60 days. The resolution initiating a lake board should be carefully drafted, as it will determine the lake board's authority and proper subjects for improvement. A lake board can also initiate a special assessment district to pay for any improvements. Given the complexity of creating, administering, and operating statutory lake boards (as well as "holes" in the authorization legislation), you should consult with an attorney well-versed in the area should you have any questions.

If your lake association wants to commence a special assessment district (rather than a statutory lake board), it really should have its own legal counsel (who is knowledgeable about special assessment districts) draft the citizen petition which will be circulated to prompt the township board to commence the process to create the special assessment district. There is a lot more that should go into a special assessment district petition than simply copying petition language that has been utilized by some other lake association. For example, the petition should deal with such diverse topics as which properties will be included in the proposed special assessment district, how properties will be assessed (whether on a per parcel basis, taxable value basis, lake frontage foot basis, lot size basis, etc.), how long the special assessment district will last, the purpose or purposes for which the district will be created, and similar matters.

Although township boards are not obligated to follow all such matters specified in a citizen petition, most townships are inclined to do so, such that the petition language usually "sets the stage" for the special assessment district which is ultimately adopted.

The lake association should also urge the township to utilize an attorney who is well-versed in special assessment districts to assist the township with the special assessment district creation and implementation process, which is quite complicated. Again, simply copying forms (resolutions and hearing notices) utilized by other townships (and which might not be accurate) is often a recipe for disaster. Keep in mind that not all township attorneys are familiar with special assessment districts. Township officials should not normally be overly concerned about the costs of utilizing the township attorney or special legal counsel to assist township officials with the special assessment district process, as the township attorney's costs, as well as other administrative costs, can be added to the special assessment district roll if the district is approved.

Typically, special assessment districts to control aquatic weeds are governed by MCL 41.721 et seq. in townships. MCL 41.722(1)(l) provides that a township may create a special assessment district for "the eradication or control of aquatic weeds and plants." A special assessment district for weed control can be initiated by the township board or by a property owner petition. The township board can proceed on its own motion with a special assessment district unless petitions signed by the record owners of land constituting more than 20% of the total land area in the proposed special assessment district are filed in opposition. Should that occur, the township cannot proceed with a special assessment district unless counter-petitions representing more than 50% of the total land area in the proposed special assessment district are filed with the township in favor of the special assessment district. Alternatively, property owners can initiate a special assessment district by filing petitions signed by landowners in the proposed district. If the township requires that a petition be filed before proceeding with the special assessment district process, the township cannot proceed until it receives a petition signed by more than 50% of the landowners in the proposed district. Accordingly, it is generally best to submit a petition in favor of a special assessment to the township initially with signatures representing the owners of more than 50% of the land area of the proposed special assessment district so as not to waste time with "dueling petitions."

Normally, the township board must hold three meetings (with the second and third meetings containing a public hearing component) in order to approve a special assessment district. The first meeting of the township board is typically held for the township clerk to report on the verification of the petitions (where petitions are involved) and for the township board to decide whether or not to proceed with the first formal hearing. Thereafter, after proper public notice, the first hearing is held to determine whether or not the special assessment district should be approved. If the special assessment district is approved, a second hearing is held. There are also notice requirements for the second hearing. The purpose of the second hearing is to review and approve the method by which the costs are allocated within the special assessment district (i.e., confirming the assessment roll).

If the township board approves the special assessment district, it must decide how assessments will be levied (whether on a per lot, per lake frontage foot, lot size, or taxable value basis). The township board will also have to determine whether or not to include offlake or backlot properties having access to the lake and the duration of the district (i.e., the number of years it will run). Special assessment districts can be set up for any number of years, normally up to a maximum of 20 years.

One of the most common errors made with regard to setting up a special assessment district for aquatic weed treatment purposes is timing. Specifically, it normally takes at least three to four months to complete the special assessment district process and can even take longer. Accordingly, if your lake association wishes to commence aquatic weed treatments in May, do not expect to commence the special assessment district creation process in February or March and still successfully complete the process by May. Ideally, the process should begin at least six to eight months before the date when the first aquatic weed treatments will occur or a contract will be signed with a profes-

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sional weed treatment controller. If payments pursuant to a special assessment district are proposed to be spread over several years or longer, the township will have to look at financing. Possibilities include loans from the township's general fund (although there are legal limits regarding such loans) and financing via bonds. Any property owner who pays on an installment basis over time can expect to pay interest. Of course, if the project involves simple weed treatments and it is done on a year-to-year basis with the special assessment levied during a given year going to that year's weed treatment, there normally would be no need for the township to finance the transaction (i.e., borrow funds).

If a special assessment district is approved, the annual assessment bill for each parcel within the district will usually appear on one of the two yearly property tax bills. Although many property owners deduct the special assessment component of their annual property taxes on their income taxes, that is normally not lawful.

* * *

SUMMARY –
SPECIAL ASSESSMENT DISTRICTS

Advantages

• Special assessment districts tend to be less expensive to set up and administer than statutory lake boards.

• The local municipality has full control over the district (including making decisions regarding what type of aquatic weed control to utilize, which independent contractor will do the job, the duration of the district, etc.).

• It tends to be more responsive to the concerns of local property owners and lake associations.

• Generally, there is little need for spending funds on municipal attorneys, engineers or consultants, once the district has been set up.

Disadvantages

• They are often not practical where the lake or body of water involved straddles two or more municipalities (since each municipality would have to set up its own special assessment district).

• While such districts tend to work well for simple projects (such as aquatic weed control), they are less effective for lake problems involving extensive or multiple solutions (i.e., dredging, the installation of a dam, etc.).

SUMMARY –
STATUTORY LAKE BOARDS

Advantages

• Where the lake or body of water involved straddles two or more municipalities, one statutory lake board properly set up can cover the entire lake or body of water, as well as some or all parts of the watershed involved.

• Statutory lake boards tend to work better for extensive projects such as large scale dredging, the installation of a dam, or oxygenation of a lake.

• Statutory lake boards are often more independent and allow for more input by potentially neutral third parties who serve on the lake board.

• A lake board tends to be better-suited for comprehensive watershed management, where multiple bodies of water are involved, studies must be conducted, etc.

Disadvantages

• They tend to increase costs for the property owners who are subject to as-

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The Michigan DNR suggests the use of Virkon® Aquatic Disinfectant and Virucide as an effective measure against fish diseases. This product can be used for disinfection of vehicles, boats, equipment, nets, waders, dive suits, live wells, bilges, trailers, etc. It is effective at killing viruses, bacteria, fungus, and mold. It is packaged in 10 lb. containers and boxes of 25 pre-measured 1.3oz (37 gram) packets to make a 1% solution in 1 gallon of water.

Virkon® Aquatic is exclusively distributed to lake associations and commercial applicators by Cygnet Enterprises, Inc. for use in reducing the spread of fish pathogens. Virkon® Aquatic is extremely easy to use, just mix 1 scoop or packet (1.3oz) of Virkon® Aquatic powder with 1 gallon of water in your sprayer to treat 135 sq. ft with a 1% solution.

For more information on fish pathogens

such as VHS, please refer to the Cygnet Enterprises, Inc. or Michigan DNR Website:

www.CygnetEnterprises.com
www.Michigan.gov/VHS/

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sessment, since statutory lake boards often utilize engineers, legal counsel, consultants, etc., more than conventional special assessment districts.

- There tends to be a loss of local control, since the statute requires that a county commissioner, the county drain commission, and others serve as members of the statutory lake board.
- Statutory lake boards tend to be difficult to dissolve if they become a rogue board, are no longer needed, etc.
- The governing statute is ambiguous and confusing at times.
- There have been fewer statutory lake boards than special assessment districts and, as a result, there is less precedent and less long-term experience for lake boards.

* * *

MCNALMS has produced a booklet which deals with many aspects of Michigan statutory lake boards.

For more information, please contact the MLSA office at 989-831-5100 or MCNALMS at www.nalms.org.

Clifford H. Bloom, Esq., is an attorney with Law, Weathers, P.C. , in Grand Rapids, Michigan.

Michigan Waterfront Alliance

A unified voice to protect Michigan's Lakes and Streams.

MWA

Members Receive: Protection of their Riparian Rights by professional lobbyists in Lansing * MWA Newsletters sent by 1st class mail * Lobbyist Reports * Testimony at important legislative hearings on behalf of Riparians *Email Action Alerts * Amicus Briefs and much much more.

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Annual dues for individual membership in the Michigan Waterfront Alliance are $50.00 per year. Dues for Lake or Stream Associations are $100 per year. Commercial and individual donations are needed and appreciated.

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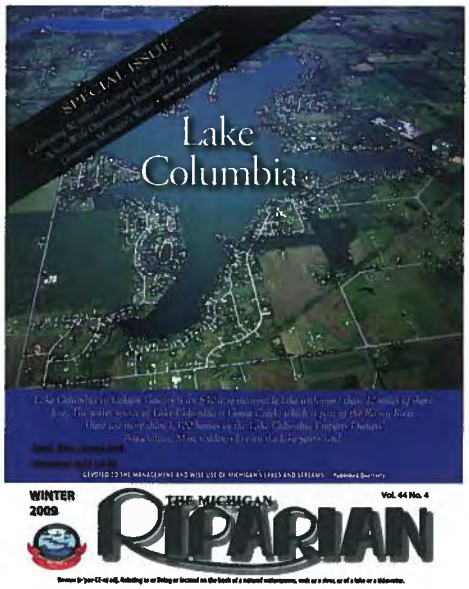
Make checks Payable to Michigan Waterfront Alliance

Send Dues and Contributions to: Michigan Waterfront Alliance, PO Box 369, Fenton MI 48430

☐ I am not ready to join yet. Please send me more information.

On The Cover Lake Columbia in Jackson County



by June VanBuskirk
General Manager
Lake Columbia Property Owners' Association

Lake Columbia is a man-made, private lake community born in July 1961 and incorporated in 1965. It is nestled in the heart of the Irish Hills. Our hometown is Brooklyn, which offers a timeless feel. Within the village and surrounding area are many churches, specialty stores, unique restaurants, community events, 52 lakes, camping and hotel options, as well as other attractions such as Hidden Lake Gardens and the Michigan International Speedway, which features the NASCAR circuit twice a year. The surrounding area – including all of Jackson County – is also filled with all kinds of interesting history.

I have lived in the area since 1972 when, as a child, my parents moved to Lake Columbia for several years, then into Brooklyn and then back to the lake area. Over the years, I have seen Lake Columbia, the Village of Brooklyn and Columbia Township grow into glorious places to live and raise my children. Now my grandbabies will be able to experience the place I joyfully call home.

Our picturesque lake consists of 840 acres with more than 12 miles of shoreline. The overall development of 1,600 acres is divided into 2,202 lots and was craftily designed into 12 separate shores that are represented by nine board members. The water source is Goose Creek which is part of the Raisin River. There is also a few artesian springs that help feed the lake. The earthen portion of the dam is 950 long and 35 feet high. The concrete spillway is 225 feet long, 30 feet wide and 12 feet high. Once the lake completely filled in after the flooding began of the undeveloped farmland and wooded portions of the land were cleared, we had what we now call Lake Columbia.

A unique piece of our lake is two relatively small islands. One is inhabited by wildlife snuggled in a bay that is nicknamed stump bay (this name is due to stumps that were not removed when the lake was first formed). The other is privately owned but they have given permission to the association for the owners to enjoy this simple treasure. Many boaters gather at the island to have cookouts on their boats or on the island, serve up some water volleyball, swim or just to relax and visit with family, friends and neighbors.

There are many benefits of our lake that add value to all owners' property as well as the priceless value of memories. Offered are things such as community only events that include a spectacular fireworks display, annual boat parade with a picnic, Halloween fun and fishing tournaments. There is also an annual lake-wide garage sale. Other benefits included in the dues are year-round refuse removal service, weed control, fish stocking, complete overall maintenance (parks grounds, dam grounds, seawalls, equipment, signs, bathrooms, office building, parking lots, docks, buoys, etc). Lake Columbia also features 16 well-kept parks that include eight bathrooms, nine secured boat ramps, playground equipment that is under the watchful eye of owners and a security team that ensures our lake and parks remain private for the use of its members. To help ensure that the many parks and lake stay private, the owners' vehicles and watercrafts are required to use decals for identification to enjoy the parks and lake. Dues also cover the yearly goose round-up to remove the geese. All these benefits are paid for by the membership, with $360 annual dues. Benefits are for the use and enjoyment for all members – if they own a home or a vacant lot, live here part-time or live here year-round.

Today, there are more than 1,300 homes in our association. Most residents live here year-round, but some homes are vacation homes for a perfect summer and even winter get away as well as the snowbird homeowners that come in the spring to spread their wings for the summer. We are a year-round recreational lake with boating, kayaking, canoeing, skiing, fishing, sailing, swimming, ice fishing, ice hockey, skating, snowmobiling, cross-country skiing and ice sailing. During the spring, summer and fall, many residents take pleasure in walking, jogging, running or bicycling around the lakes. Some of the most beautiful sunrises or sunsets can be viewed from parks or from owners' property. The lake has a quiet, peaceful feel when the lake is frozen over and surrounded by blankets of white snow. There is notably something about every season that brings a comforting awareness of the lake's surroundings.

It takes a lot of year-round, behind-the-scenes, proactive hard work and dedication from the board of directors, office staff and Maintenance Department to keep the lake community running smoothly. Many owners' over the years have enjoyed the area and our lake so much that their children or even other relatives come to live or own property. We are a community of family and friends.

In March 1998, I was given the wonderful opportunity to become an employee of our association. It has been an honor to serve the board of directors and members over the years. Many thanks go to the time spent by present and past board members, employees and owners – all of whom have given so much of themselves to make our lake and community what it is today and for the future. There are a few past and present board members, employees and several owners that hold a special place and they all know who they are. If you are ever in the area, please feel free to stop in the office or tour the area to see it for yourself. Contact realtors to see how you too can become a part of our blessed lake and community.

Please visit us online at www.lakecolumbia.net to see why owners and future owners are drawn to have a desire to capture the mysterious essence and ambiance of Lake Columbia and the wonderful world of lake living.

Important New Lake Publication Is Here

Michigan Lake & Stream Associations, Inc. (MLSA) is pleased to announce the release of its new publication *Michigan Lake Associations – The Nuts and Bolts* authored by Grand Rapids attorney Cliff Bloom (legal counsel for *The Michigan Riparian* magazine and MLSA, and co-counsel for the Michigan Waterfront Alliance).

This publication is a well-written, easily understood manual which includes everything you ever wanted to know about Michigan lake associations.

Topics in the booklet include how to form and maintain a lake association, conducting meetings, lobbying local governments, weed treatments, special assessment districts, dues, statutory lake boards, and many other association and waterfront issues.

MLSA is offering this new publication for just $15 plus $2.07 for postage (for a total of $17.07 for each booklet).

If you order three or more copies, the price is $12 each plus $2.07 postage for each book. To order, copy the following order form, fill it out, and mail the form together with your check to:

MLSA
Lake Associations Book
304 East Main Street
Stanton, MI 48888

Name (please print): _____

Street or P.O. Box Number: _____

City: _____ State: _____ Zip Code: _____

E-mail address: _____
Telephone number: _____
Number of booklets ordered: _____

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Cooperative Lakes Monitoring Program

How Healthy Is Your Inland Lake? Let's Find Out Together

Michigan's unique geographical location provides its citizens with a wealth of freshwater resources including more than 11,000 inland lakes. In addition to being valuable ecological resources, inland lakes provide tremendous aesthetic, recreational and economic opportunities for the people of the state of Michigan.

As more and more people use the inland lakes and surrounding watersheds, the potential for pollution-related problems and designated use impairment dramatically increases.

High-quality information (including water-quality data, levels of use, and the degree of use impairment) is essential for determining the health of an inland lake and for developing a management plan to protect the inland lake. As the beneficiaries of Michigan's inland lake resources, citizens must take an active role in obtaining vital information and managing their inland lakes. The Cooperative Lakes Monitoring Program (CLMP) is managed by the Michigan Department of Environmental Quality (MDEQ) as a major component of the Michigan Clean Water Corps (MiCorps). MiCorps is a collaborative partnership involving the MDEQ, the Great Lakes Commission, the Huron River Watershed Council, Michigan State University and the Michigan Lake and Stream Associations. The primary purpose of this partnership is to develop sampling methods, conduct training workshops, provide technical assistance, ensure quality control and provide laboratory support to enable volunteer water-quality monitors.

The primary goals of CLMP are to:

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

CLMP parameters include:

- Secchi disk (water transparency)
- Spring/summer total phosphorous
- Chlorophyll
- Dissolved oxygen and temperature
- Aquatic plant identification and mapping
- Exotic plant watch

Lake scientists have developed a variety of systems to express lake productivity on a continuous scale. One of these systems is the Carlson Trophic State Index (TSI) which incorporates water clarity, as measured by a Secchi disk; the algal plant pigment chlorophyll; and total phosphorous as primary indicators of lake productivity. The data you collect as a volunteer monitor will allow MiCorps scientists to assess the overall productivity of your inland lake and develop a TSI classification for your particular lake.

Lake water quality is a general term covering many aspects of lake chemistry and biology. Enrollment in the CLMP entitles you to attend a free one-day training class where you will learn about inland lake ecology and CLMP water-quality monitoring procedures.

Originally known as the Self-Help Program, the CLMP continues a long tradition of citizen volunteer monitoring on Michigan's inland lakes. Michigan has maintained a volunteer lake monitoring program since 1974 – which makes it the second oldest, as well as one of the most successful, volunteer monitoring programs for inland lakes in the United States.

The CLMP was created to engage, encourage and assist volunteer inland lake water quality monitors, and has since become an operational component of the Michigan Clean Water Corps (MiCorps). The MiCorps partnership was created by Governor Jennifer Granholm in 2003 to assist the MDEQ in collecting and sharing water quality data for use in water resources management and protection programs.

To learn more about this unique program or to enroll in the CLMP, contact Ms. Jean Roth at 989-257-3715 or e-mail jroth@mlswa.org. You may also enroll at the MiCorps web site at www.micorps.net.

MiCorps
Monitoring Michigan's Water Quality

"Michigan Lakes — Ours To Protect"

Take a Hands-On Approach To Preserving and Protecting Your Lake

Enroll in the 2010
Cooperative Lakes Monitoring Program

Contact Jean Roth
CLMP Program Administrator
Ph. 989-257-3715
e-mail: jroth@mlswa.org
or Enroll Online at
www.micorps.net

Wisconsin Lake Family Fights Swimmer's Itch

Our story begins in the summer of 1973, when our contractor completed construction of our cabin on Webb Lake in northwestern Wisconsin. It was that summer when our family - myself (Bud), Karen, nine-year-old Tucker, four-year-old Tim, four-month-old Katie, and Pepper the black lab - began to enjoy and appreciate cabin and lake life every weekend from June to September.

Karen and I loved it and our kids and their friends loved it. They grew up going to the cabin almost every weekend - at least during the summer. Today, 37 summers later, we are still going to the cabin on Webb Lake. Our family has changed from five and one lab to 16 and two labs! Now the eight grandchildren love it, too.

Several years ago, we began to notice more ducks and geese on the lake. Next, we began to notice more snails in the lake. Then, we began to see red bumps appearing on our skin, especially on the young grandkids. Those red bumps are itchy! What was going on? We had never experienced this.

Well, you probably know the answer. Those itchy red bumps are called swimmer's itch. Overnight, our water fun was threatened. What could we do to prevent swimmer's itch? We read and studied most of the information available, talked with DNR officials, and tried many things but nothing really prevented it. Our grandkids were scratching and itching to the point of not sleeping well and neither were their parents or grandparents!

Photo courtesy of the CDC, www.cdc.gov
Schistosome dermatitis, or "swimmer's itch," occurs when skin is penetrated by a free-swimming, forked-tailed infective *cercaria*. Upon release from the snail host, the infective cercariae swim, penetrate the skin of the human host, and shed their forked tail, becoming schistosomulae. The schistosomulae migrate through several tissues and stages to their residence in the veins.

Then, this summer, we decided to mix our own "swimmer's itch block" with a 30SPF sunscreen. It worked! No swimmer's itch! Well, let me qualify that. It worked as long as mom or dad applied the lotion to the child. Yes, we had a few red bumps, but that was a result of the little ones getting into the water before they had their "lotion" on. Yes, it did work and we gave it a good test. We had a total of approximately 240 grandkid days at the cabin this summer (same as eight grandkids for 30 days) and they were in the water at least 90% of the days. When applied and applied properly, there was no swimmer's itch! It worked on children from four to 12 and on adults from 18 to 66. We were thrilled with our success. It was another great summer at the cabin. One last word, during the summer, my grandson, TC, after spending 10 days with us at the cabin, said to me, "Ba, since the 'lotion' works, why don't you sell it?" I said "TC, I think that is a good idea. I'll think about it." Well, I am still thinking about it and if you are interested in a 'lotion' that prevents swimmer's itch, please go to noswimmersitch.com.
- submitted by Bud Mixon

EasyPro Introduces Eco Series Waterall Spillway

This innovative product is a great addition to our existing line of spillways. Eco-Series products are geared toward home owners and do-it-yourselfers. All Eco-Series products are roto-molded for strength and durability.

This one-piece spillway is ideal for creating pondless-style water features. They are available in 18", 23", 34" and 48" widths. The liner attaches to the spillway using the patented Spliner Bar attachment system. The liner attaches to the spillway using a quick, easy, bolt and silicone-free Spliner Bar. The liner can be attached in seconds without bolts, silicone or cutting. Pre-installed bulkheads allow for easy plumbing into either end. Each spillway also comes with a diffuser tube that lays along the bottom of the spillway giving the falls a natural even flow. The Eco-Series line products are good quality, easy to install and made in the U. S. For more information or a free catalog call 800-448-3873 or visit www.EasyProPondProducts.com.

- submitted by Kari Hanes, Stoney Creek Fisheries & Equipment, EasyPro Pond Products

New wetlands legislation

Gov. Jennifer Granholm has signed Senate Bill 785 into law, which will keep wetland jurisdiction under the Department of Environmental Quality (DEQ) rather than sending it to the U.S. Army Corps of Engineers. The bill now becomes Public Act 120 of 2009. State Representative Dan Scripps (D-Leland) hailed the passage of a stable funding source to protect Michigan's wetlands for the next three years. The funding will support bipartisan legislation that Scripps sponsored in the House. The House overwhelmingly approved $6 million in funds for Michigan's wetlands protection program, an amount that will help support the initiative for three years. The plan, backed by a bipartisan group of lawmakers, will:

- Affirm that Michigan will retain responsibility for oversight of its wetlands.
- Increase the involvement of local governments and conservation districts in wetlands protection.
- Establish a Wetlands Advisory Council with representatives from government, business and conservation groups to improve efficiency and effectiveness.

The plan also identifies 2,500 acres for cranberry production, a move that will create 383 permanent jobs.

Save the Dates !

Michigan Lake and Stream Associations

MICHIGAN LAKE AND STREAM ASSOCIATIONS
49 Years
Education and Partnerships to Benefit Michigan's Inland Lakes and Streams

49th Annual Conference

Radisson Hotel
Lansing, Michigan

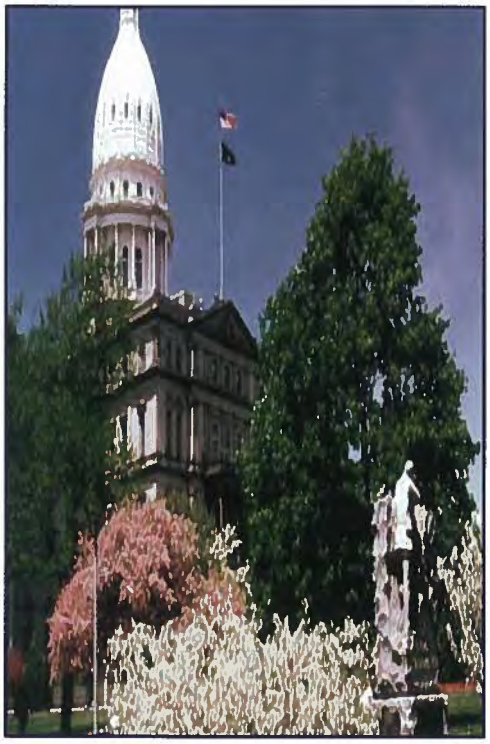
Friday and Saturday

April 30th - May 1st, 2010

Conference Highlights

Legislative Forum
49th Annual Banquet
Keynote Address
Riparian Services Exhibitors
Non-Profit Organization Exhibitors
Free Literature
Distinguished Speaker Presentation
Topics for 2010:

- Riparian Law Update
- 2000 Baum Family Trust Riparian Legal Case
- Lakescaping
- Mi Natural Shoreline Partnership
- MDEQ Lakescaping Permit Process
- Aquatic Invasive Species Management
- Inland Lake Stewardship
- New Michigan Personal Watercraft Law
- Inland Lake Fisheries
- Mi Trout Streams



Save the dates The ML&SA 49th Annual Conference promises to be our biggest and best ever! Join us at the Radisson Hotel in downtown Lansing as we again celebrate and explore Michigan's most valuable natural treasures – our inland lakes and streams. Whether you are a riparian property owner, a lake and stream manager, natural resources educator, or an avid outdoor sports enthusiast - this conference offers an excellent opportunity to learn more about our magnificent freshwater resources and meet old friends and colleagues in our state's capitol. Visit our web site later this year for additional information and 49th Annual Conference registration information.

www.mlswa.org

Michigan Lake and Stream Associations. Inc.

306 East Main Street, Stanton, Michigan 48888
Phone 989-831-5100 e-mail: info@mlswa.org
www.mlswa.org www.micorps.net

2010 ANNUAL CONFERENCE

REGISTRATION FORM

Please Print Clearly

Name_____ Day phone #_____
Only one name per registration **(Spouses please use separate forms)** May be copied for additional attendees

Address_____City_____State___Zip_____

e-mail_____County_____

Lake Name _____
(If you reside on a lake or stream)

Association, School, or Company Name you may be associated with_____

Note: Meals are NOT included in these registration fees.

	PRE-REGISTRATION By April 20, 2010	REGISTRATION AT the CONFERENCE	
♦ FULL CONFERENCE (2 days)	$ 65.00	$ 75.00	$_____
♦ ONE DAY ATTENDANCE – ONLY	$ 35.00	$ 40.00	$_____
For Which Date:			
Friday, April 30th ———			
Saturday, May 1st ———			
♦ REGISTERED STUDENT- Full Conference (per person)	$ 10.00	$ 15.00	$_____

CHECK/MONEY ORDER made payable to ML&SA
*MASTERCARD * VISA * DISCOVERY * AMERICAN EXPRESS (Please circle)

Check Number_____Check, Money Order, or Credit Card Total $_____

Credit Card #_____/_____/_____/_____/ Exp. Date_____

PRINT Name as it appears on Credit Card _____

Credit Card Holders Address_____

Phone Number of Credit Card Holder (_____)_____

Signature of Credit Card Account Holder X _____

Please Note: Radisson Hotel registration is on a separate sheet, and should be sent directly to the Radisson Hotel

Mail ML&SA Conference Registration form to:

Michigan Lake & Stream Associations, Inc., P. O. Box 57, Lake George, MI 48633

Radisson Hotel Lansing
111 N. Grand Ave., Lansing, Michigan 48933
(517) 482-0188 Main Line: (517) 487-6646

2010 MLSA Annual Conference (April 30-May 1, 2010)

Hotel Reservation Form

Group Name: Michigan Lakes and Streams Association

Reservations must be made by utilizing this form and must be received by the hotel no later than March 30, 2010. Reservation requests received after this date will be taken on availability based at current room rates, and/or may be at another hosted property. Please note that check-in is 4 p.m. day of your arrival; check-out is 12 p.m. the day of departure.

Accommodations: Please indicate your choice of king or two (2) doubles and smoking preference. All requests will be based upon first arrival of reservation form. The hotel does have whirlpool suites available at a discounted rate, but different from the negotiated group rate (*please contact the hotel directly for a rate quote).*

Rates: (inclusive of local tax & service charge); subject to 6% State Tax

Guestroom, Food & Parking.....$163.26
Food with no room (3meals) & Parking.....$ 46.98
Guestroom with 7% local tax (no food) & Parking.....$122.52

Please Print:
Reservation Dates: Arrival Date_____ Departure Date _____

- You must present valid State of Michigan certificate at check-in to qualify for TAX EXEMPTION
- Share With Guest: ALL DEPOSITS WILL BE $50.00 PER PERSON
- ALL CHECK PAYMENTS ARE TO BE MADE TO THE **RADISSON HOTEL LANSING**

Number of Guests in Room: _____Number of Adults:_____ Number of Children _____

Name_____

Company_____

City: _____State:_____ Zip:_____

Phone :_____ E-mail Address: _____

Special Requests:_____

The Radisson Hotel Lansing will do its best to accommodate all special requests, but cannot guarantee them

Payment Method:
Check Enclosed _____
Visa ( ) American Express ( ) MasterCard ( ) Discover ( )

Credit Card # _____Exp Date: _____

Signature: _____
Your credit card will be charged upon receipt for a one (1) night deposit plus tax. ($117.52)
All registration Forms Are To Be Mailed To and/or Faxed To: The Radisson Hotel Lansing, Attn: Reservations, 111 N. Grand Avenue, Lansing, Michigan 48933 - (517) 487-6646 (Fax)
Cancellation Policy: Cancellation and changes affecting arrival/departure or any special requests must be made 7 days prior to your date of arrival in order to proper serve you and/or to receive a deposit refund.

Michigan Lake and Stream Associations, Inc.
49th Annual Conference
Radisson Hotel, 111 N. Grand Ave., Lansing, Michigan
April 30. 2010 – May 1. 2010

CLMP Training Registration Form ONLY

I will be attending: Friday, April 30, 2010 ____

I will be attending: Saturday, May 1, 2010____

Parameter classes I plan to attend: (please mark your choices)

Secchi Disk ____ Spring Phosphorus ____ Summer Phosphorus _____(Classes on **Fri., April 30**)
Chlorophyll ____ Dissolved Oxygen ____ Exotic Aquatic I.D. _____ (Classes on **Fri., April 30**)
Aquatic Plant Mapping ____ (Class on **Saturday. May 1, 2010**)
All of the above ____

Please answer the following questions regarding your/your lake's participation in the CLMP:

1. Is this the first year your lake has participated in the CLMP? _____
2. If not your first year, how many years has your lake participated in the CLMP? _____
3. What year did your lake first enroll in the CLMP (former Self-Help program) _____

Lake Name: _____ **County:** _____

Your Name:_____
Only one name per registration – additional attendees please use separate sheet. You may make copies of this form.

Address: _____

City: _____

State: _____ **Zip:**_____

Phone # _____ **E-Mail**_____

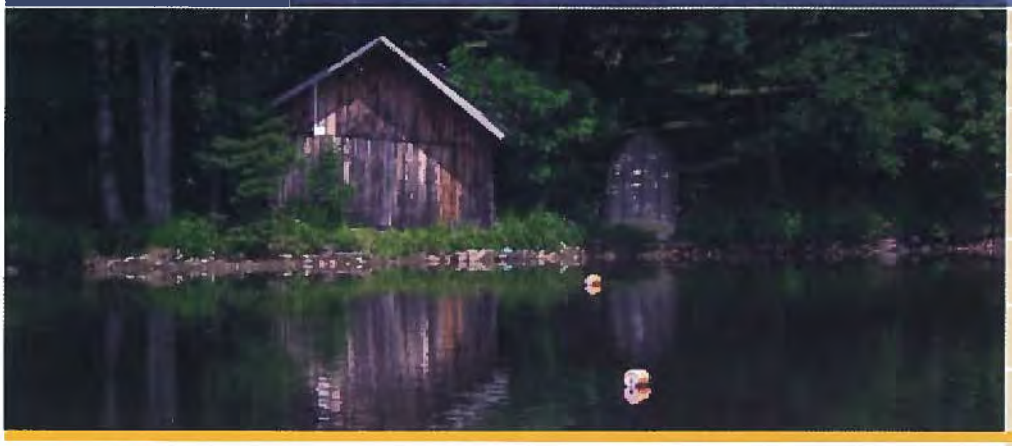
Please fill out a separate MLSA conference registration form if you plan to attend the full conference.
CLMP training classes are free — The cost of meals and lodging are the responsibility of the attendees. Buffet Luncheon is available in the Capitol City Grill in the Radisson Hotel on Friday from 12:50 – 1:30 for $12.95.

Mail this CLMP training registration form to:

Michigan Lake & Stream Associations, Inc., P.O. Box 57, Lake George, MI, 48633.

Please direct questions to Roger Carey, Treasurer, at 989-588-9538.

MIDDFOIL® Controlling Invasive Eurasian Watermilfoil



EnviroScience, Inc.

EXCELLENCE
in Ecological Monitoring

Problem With Milfoil? We Have the Solution

EnviroScience offers the most effective, long-term method available for controlling the invasive Eurasian watermilfoil (EWM). Known as MiddFoil®, the process increases local populations of a native beetle that is a known predator of EWM. The beetles feed and multiply on the stem of the weed, which ultimately reduces the EWM below problematic levels. The Milfoil beetle does not damage native vegetation or property, and the population is regulated by the amount of food (milfoil) available. Best of all, MiddFoil® is environmentally safe and can be incorporated into your current aquatic plant management program. If you are looking for an economical, effective, and long-term solution to control EWM in your lake, pond or stream, then call one of our biologists and ask about the MiddFoil® process.

Milfoil weevil, E. lecontei

EnviroScience biologists surveying the problem

EnviroScience's state-of-the-art culturing facility

NEWSFLASH! Recent changes have made Middfoil® programs more affordable than ever.

MIDDFOIL® ADVANTAGES

- Provides long-term control
- Does not interfere with recreation or other water body uses
- Environmentally and ecologically sound
- No chemicals
- No maintenance
- Versatile; can be implemented in large and small water bodies
- Cost efficient
- Supported by university research and numerous peer-reviewed journal articles

ALTERNATIVE METHODS

- Chemicals are short term, expensive, and can be detrimental to the environment. Most herbicides need to be reapplied each year.
- Mechanical cutting or harvesting produces numerous fragments, which actually causes EWM to spread more quickly.
- Dredging is extremely costly.

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Stow, Ohio 44224

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