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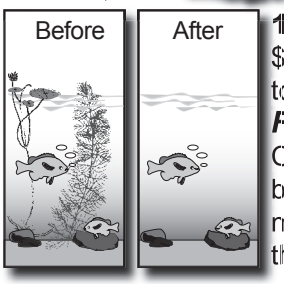

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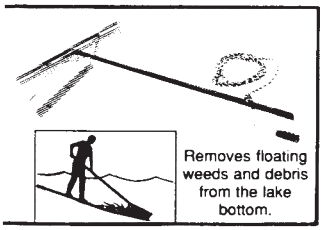

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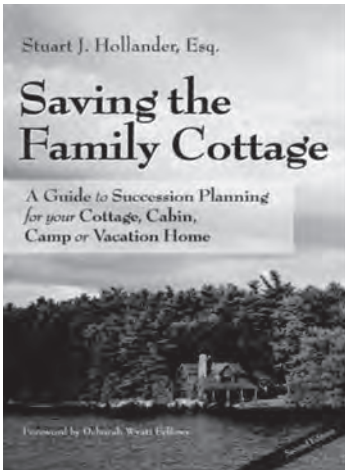

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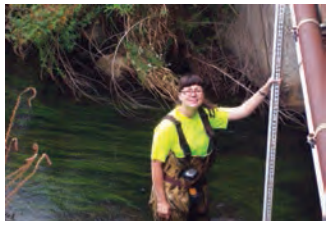


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Michigan Supreme Court to hear appeal

Recently, a number of "former" riparian property owners throughout Michigan received good news when the Michigan Supreme Court agreed to hear a further appeal of the disastrous decision of last summer by the Michigan Court of Appeals in *2000 Baum Family Trust, et al. v Babel, et al.*, 284 Mich App 544; 733 NW2d 44 (2009). This case involves platted public road rights-of-way which run along the shores of lakes in Michigan where there was no intervening land between the lake and the road right-of-way when the plat was created. Before last summer, Michigan appellate courts had universally held that the first-tier lots along such roads were riparian, with exclusive dockage, boat mooring, sunbathing, lounging, and similar rights along the waterfront adjacent to the lot and the public road right-of-way. Last June, the Michigan Court of Appeals reversed a century of well-settled law and held that such first-tier lot owners are no longer riparian, and that the local road commission owns the road right-of-way and can even preclude the first-tier lot owners from using the lakefront for dockage, boat moorage, etc. Worse yet, if the Michigan Court of Appeals decision is not reversed by the Michigan Supreme Court, local road commissions could authorize public docks, mooring spaces, etc., along those public road rights-of-way.

It could take the Michigan Supreme Court anywhere from six to 18 months to reach a final decision in this matter. You can find out more about the *2000 Baum Family Trust* case by visiting the Michigan Lake & Stream Associations (MLSA) web site at www.mlswa.org, as that website has extensive materials on the case. Also, the last two issues of *The Michigan Riparian* magazine include articles devoted to *2000 Baum Family Trust v Babel*. In addition, there will be a symposium/panel discussion regarding the case at the annual MLSA conference at the Radisson Hotel in Lansing, Michigan, on Friday evening, April 30, 2010, beginning at 9:00 p.m.

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Letters To The Editor

Send letters to: The Michigan Riparian
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Dear [Riparian],
I have written this letter in response to the article entitled "Weed Whacker" that appeared in the winter 2009 issue of the Michigan Riparian. In this article, several distinctions were made between lake boards established under provisions of MCLA 324.30910 et seq. and special assessment districts established by townships pursuant to MCL 41.721. I take exception to several of the statements and conclusions in this article and felt compelled to write and explain why.

Lake Associations "Lose Control"

The article stated that because, by statute, the county drain commissioner and a county commissioner serve on a lake board, lake associations tend to "lose control." However, as was noted in the article, a lake board must have at least one riparian representative on the board. In addition to the one mandatory riparian representative on a lake board, local units of government have the option of appointing lake residents as representatives on a lake board. On a township board, there may be no representative from the lake.

I have been involved in hundreds of special assessment proceedings over the past 25 years and have guided both lake boards and township boards through the public hearing and subsequent decision-making process. I have never seen a lake board or a township board render a decision that the board did not feel was in the best interest of the lake and a majority of the residents involved. Often, input from the lake association is paramount to the final board decision. With a lake board, the board members will generally look to the riparian representative(s) for input and direction. Township boards and lake boards are required to follow nearly identical public hearing procedures and, it has been my experience, that township boards and lake boards are equally accountable and attentive to the will of the people.

Costs Increase

The article stated that lake boards tend to increase project costs because they often utilize engineers, legal counsel, and consultants. Whether a special assessment district is set up by a township board or a lake board, it is important to recognize that the funds collected are public monies that have been earmarked for a specific public improvement – these are not private funds or association monies. Given that public funds are involved, it is prudent to solicit bids for contract work and to have a mechanism in place to ensure work is performed in accordance with the project contract documents. This way, the public can be assured the money is spent wisely.

It is also prudent to have an unbiased evaluation of the lake conducted to determine the scope and method of plant control. These tasks are generally performed by an engineering or environmental consultant. It is not wise for a township board or a lake board to make these decisions without some professional guidance. In fact, it has been my experience that when a township board or a lake board simply hires a contractor with no professional assistance, they often pay more. These costs can far exceed the cost of professional assistance. Township board members may have little experience with competitive bidding and public works administration, and may be unfamiliar with drafting contracts to adequately address liability, compensation, performance, and cost issues.

Regardless if a project is set up under the township or a lake board, the checks and balances the consultant brings to the table will often save money over the long term. Establishing a special assessment district under the township statute does not obviate the need for professional assistance, be it legal, environmental, or engineering. To simply cut a contractor loose with the directive to "kill the weeds" could be a recipe for over-charging and over-treatment which ultimately is not good for the pocketbook or the health of the lake.

With lake boards, the county drain commissioner often has a wealth of experience regarding special assessments, the letting of contracts, project administration, record-keeping and other project-related tasks. With their knowledge of public works projects, drain commissioners can help ensure that projects are effectively administered and that costs are minimized.

Township Special Assessment Districts Are Less Expensive to Establish and Administer Than Lake Boards

The statutory procedures and special assessment proceedings to establish a special assessment district are quite similar for a lake board and a township board. There is nothing inherent in the lake board proceedings that make lake board projects more expensive to set up and administer.
With respect to administration, it should be noted that township boards often have a myriad of issues to address at township board meetings. Most often, these issues have no bearing on the lake in question. By contrast, lake boards have a single purpose and focus, and the only issue on the table at a lake board meeting is the lake in question. In this respect, a lake board can be far more expedient administratively than a township board. Also, it should be noted that many townships have full plates and simply do not want to take on a plant control project.

Less Precedent and Experience for Lake Boards

The lake board statute was enacted in 1966 and currently there are well over 100 active lake boards in Michigan. Over the past 40-plus years, hundreds of lake improvement projects have been successfully implemented under the direction of lake boards. While the article noted that lake boards can undertake large and complex projects, the majority of lake board projects have focused exclusively on aquatic plant control. The township special assessment statute was enacted in 1954, but it wasn't until 1994 that is was amended to include aquatic plant control and some other lake improvements. Thus, in practice, there is more precedent and long-term experience with lake boards than township boards.

In closing, there is always a concern when establishing a special assessment district, either under a lake board or a township board, that lake residents will lose control. However, in the absence of a special assessment district, it is often difficult to garner sufficient funds to tackle a project. While some residents may contribute financially to help address a problem, many won't. A special assessment district allows residents to collectively pool their resources to achieve clearly defined objectives. The statutory hearing process ensures all interested property owners have an opportunity to provide comment on the scope and cost of the proposed improvements before any decisions are made. At the end of the day a special assessment district, be it under a lake board or township board, provides a means to build consensus and get the job done.

– Tony Groves
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Cover photograph by Trudy Thompson taken of swans on Clifford Lake in Montcalm County.

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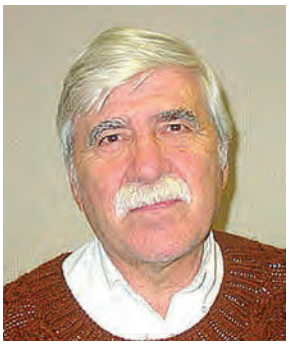
From The Publisher

A Tribute to Del Sipes



Franz Mogdis

The Great Lakes state has lost a passionate and pro-active voice for natural resources conservation and stewardship. On Saturday, January 2, 2010, Delavan Sipes passed away at the age of 84 after incurring a severe head injury during a fall in his home. Del had served Michigan Lake and Stream Associations as our newsletter editor for many years.

His commitment to preserving and protecting Michigan's natural resources stayed strong even in the face of a long and difficult battle with leukemia. Del's retirement years had been dedicated almost entirely to the cause of natural resources conservation and to educating the public about the importance of stewardship of Michigan's freshwater treasures.

He was a proud veteran of the U.S. Navy. He served as a radar operator on the USS Breese, a minesweeper, in the Pacific theater of operations during World War II. He held undergraduate and graduate degrees in science and engineering from Wayne State University and the University of Michigan. Del was always very grateful for the educational opportunities presented to him by his country through the GI Bill of Rights. He held a deep and abiding love for his country and felt obligated to contribute his energy, education, experience and unique perspective to improving both his country and every organization he was affiliated with.

Del Sipes

Proud of his career as an educator, Del first taught in the Detroit Public Schools and later at Schoolcraft College in Livonia, where he pioneered the Bio-Medical Instrumentation Technology program and taught various electronics and science courses for 30 years. As President of the Faculty Forum, Del was instrumental in fostering and implementing a "mutual gains" form of labor negotiations to the college.

Retiring in 1986 as Professor Emeritus, Del moved from his home at Wolverine Lake in southeast Michigan to Paw Paw Lake in Watervliet. He served on township boards and committees, eventually earning the sobriquet of "Del Quixote" by more conservative friends and acquaintances.

A passionate researcher, writer and conservationist, Del served for many years as President of the Paw Paw Lake Association and as President of the Woodland Nature Conservancy. His weekly column, the Paw Paw Lake Almanac, was enjoyed by the community in 628 issues of the *Tri-City Record*.

Del was a deeply spiritual man, but not in the traditional sense of the word. At the time of his death, he was writing a book based on the teachings of Edgar Cayce, ancient Sumerian and Egyptian scripts, and the startling commonality among historical readings around the world. He was also writing vignettes of his childhood, which were to be published as a children's book.

Del is survived by Jean K. Christensen, his love of 26 years; his sister Eulene Hummel; his children – Gretchen Anderson, Debora Sipes-Burgess, Pamela Borchert, Bennett Sipes, Valerie Rogers, Timothy Sipes, Terry Sipes, and their respective spouses.

Memorials may be made to the VFW National Home for Children, 3573 S Waverly Rd., Eaton Rapids, MI, 48827 or the Rose Arbor Hospice, 5473 Croyden Avenue, Kalamazoo, MI 49009. Condolences or memories may be e-mailed to the Hutchins Funeral Home at hutchins.home@sbcglobal.net, or mailed to Jean Christensen, 5660 Woodland Avenue, Watervliet, MI, 49098.

– Publisher, Franz Mogdis *– Editor, Jennifer Churchill*

FEATURE A Look at the Values of A Lake

Revenue, non-tax cash flows, ecosystems and tourism

By Joseph M. Turner
CEO, Michigan Property Consultants

This article is Part II of an article that appeared in the Winter 2009 issue of The Michigan Riparian. This portion will explore new revenue and non-tax cash flows, as well as the value of the ecosystem and tourism.

NEW REVENUE: NON-TAX CASH FLOWS – SECOND HOMES AND TOURISM

Even though the subject and calculations for this article are fictional, where possible, calculations used in the table were taken from realistic sources. They include surveys by property owner associations and academic research. For example, in a study of spending patterns, research by Dr. Daniel J. Stynes of Michigan State University documented non-resident property owners spending between $5,000 and $10,000 annually (1994).

The Walloon Lake Association supported Stynes' with some of the best data I've seen in the state. In both 1991 and 1998, the association conducted a survey of expenditures by its members and published the data in the "Wallooner." Responses to their surveys were very high (56% in 1991 and 41% in 1998). The association reported average spending "times 1,150 members is 14.8 million dollars each year." That spending ($12,870 per member) does not include travel expenditures which could be substantial. In part, travel contributes to a local economy. Sixteen percent of Walloon Lake Association members resided in the area year 'round. Non-resident owners visited about 12 weeks annually.

In *Economic Impacts of Tourism* and other works by Dr. Stynes, methods of approximating the impact of importing new money to a local economy are developed. In some ways, the following discussion is similar to what happens when businesses create new jobs.

For our example, the money "imported" into the local economy is generated from two sources. First, purchases of goods and services comes from tourism and other recreational users. Secondly, money spent in the area by non-resident property owners. A certain portion of the imported money leaks out of the local economy. "Leakage" is part of the new money which is used to acquire goods and services from another economic region. Because "leakage" does not stay within the local economy it has been removed from all calculations of impact.

Remaining money, new to the local economy, isn't spent once; it circulates. Here is how. Assume $100,000 is collectively used by visitors to purchase various goods and services. Some of the visitors may buy a pizza, and locally produced bait for fishing, and magazines to read if things get boring, and gasoline and lunch and maybe even a boat. Of that $100,000 perhaps $30,000 is sent to the companies that made the boat, magazines and other items. The $70,000 remainder is money that has a local fiscal impact. It creates and sustains jobs. It is used to pay wages and buy other goods and services. This economic impact is termed a secondary or "indirect effect." Employee purchases with wages paid from the initial money causes a third or "induced" economic impact.

One method of quantifying initial purchases by tourists and visitors to estimate economic impact is widely used and documented. Known as the "Travel Cost Method," the procedure involves surveying visitors to determine how much and where they spent money. The expenditures are multiplied by the number of parties making such expenditures and by the number of days for which expenditures was made. This, too, is shown in the chart along with a "multiplier" for "circulation."

VALUE OF ECOSYSTEM – VALUING AN EXISTING SYSTEM AND BUILDING A NEW LAKE FROM SCRATCH

Some values associated with the ecosystem of the hypothetical lake are shown in the table for illustrative purposes. The reader is cautioned that the author is not competent to professionally address the topic of computing all of the values shown. Nevertheless, effort has been made to properly research the material presented. There is substantial disagreement between economists over appropriate measures of value as they relate to an ecosystem and how values should be aggregated. Here, values are separated by function. For example, value is calculated for commercial harvesting of wildlife including fish. However, the value of recreational fishing (both catch-and-release and catch-and-keep) is included as part of the overall value of the ecosystem shown under the Contingent Valuation Method. Similarly, periodic flooding causes a quantified amount of annual spring clean up ($25,000). Wetland improvements might eliminate those expenses, so a value of the potential savings is shown but not included as part of the "total value" of the lake. Some economists regard the Travel Cost Method as more reliable than the Contingent Valuation Method. For illustrative purposes, results of both methods are used in the chart. Other procedures to calculate the ecosystem value exist. Market values can be determined for commercial fish harvests but for simplicity, harvest values shown are derived from a Michigan law which declares a value of $10 for game fish and $5 for rough fish and relate to a small commercial fishery. Similarly, this hypothetical ecosystem supports bird hunting and commercial trapping, so values are shown for those harvests. Bird watching and other potential components of ecosystem value not shown but easily recognized, are considered part of the value derived with the contingent value calculation.

We spoke of harvested fish, but what about the continually existing biomass of fish in the water? It is one example of an internal component. When there is prosecution under environmental laws for a fish kill, damage based upon the value

continued on page 9

continued from page 8

of the kill is determined. Thus, biomass has value. It is included in the Contingent Valuation calculation. Estimates of fish biomass in Michigan's lakes was hard to come by, but they do exist. For purposes of this illustration, it was assumed that the complete biomass of fish within the lake was 80 pounds per acre and that the division between game and rough fish was 50/50. It was also assumed that natural reproduction rates replaced harvested fish. These component values highlight the idea that just as there are internal and external value influences in private property, public property has internal and external value components.

The value of the wetlands is listed with real estate. Technically, the wetlands are not part of the lake as defined by law. They are created by the lake and an important part of its ecosystem. Fortunately, in the recent past there has been a good deal of research in the area of wetland valuation in Michigan. As stated earlier, the cost of actually producing wetlands can be determined by examining records of developers meeting environmental regulations and from other sources. In addition, some recent, sound studies by economists have provided benchmarks for valuing Michigan's wetlands. For our hypothetical situation, sales and other market indicators of value were judged sufficient that wetland values could be included with the table along with other real property values.

Costs to create a 300-acre lake were examined. Within the recent past, man-made lakes have been built around the country and within this state. Costs to build a new lake varied widely and could not be narrowed down enough to use in calculations for this example. Nevertheless, the range of costs to excavate a lake and let water naturally fill the excavation ran from around $25,000 to $100,000 per acre. Applying that range of cost to the example creates an indicated range of value between $7.5 million and $30 million. Damming a river was a different story. Costs associated with building new dams that could contain a 300-acre lake were available. I found engineering estimates in the state to build a new dam to contain a river and create a lake similar to that depicted in this example. Considering inflation adjustments, the new dam would cost about $5 million to $6 million.

In addition to determining costs of digging out a lake or damming a water flow, economists and experts in natural resource values have developed methods to estimate the value of an existing ecosystem. From among the methods used, I used what is known as a contingent value method. The basic procedure is to survey a population and employing best practices of the profession, determine a population's willingness to pay to maintain a natural resources which exists. From a total population of potential contributors, an estimate is made of how many people would really contribute money and how much money it is that they would contribute. This contingent "value" cannot be extracted from market transactions. Economists King and Mazzotta describe the valuation procedure saying:

"It is not necessary for ecosystem services to be bought and sold in markets in order to measure their value in dollars. What is required is a measure of how much purchasing power (dollars) people are willing to give up to get the service of the ecosystem, or how much people would need to be paid in order to give it up ..."

Examples of people giving money in this way may be found in the state of Michigan's solicitation of contributions for specific purposes. For example, some people voluntarily contribute money when purchasing an automobile license plate to support programs for a bird known as a "loon." The attractiveness of a contingent valuation technique rests in part on the fact that it is clear a natural resource would have value to people who may never use it. People place value on protecting wildlife habitat. They want to preserve natural resources for some future date when they or their children or grandchildren may want to use it. People will contribute money for things they value.

In order to use real market information for this hypothetical example, maps of a geographic area covered by various forms of advertisement from an actual community were used. In addition, records of land ownership and (private and public)

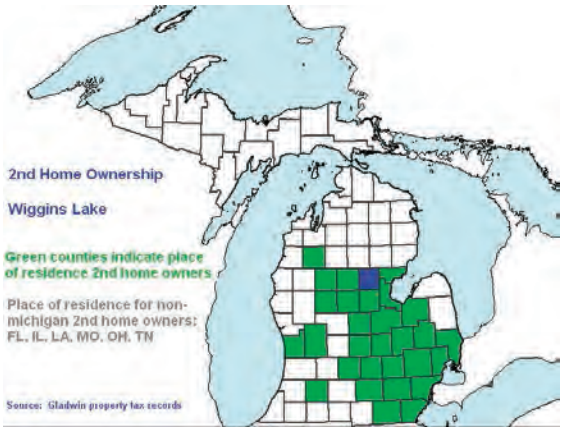


Figure 2: Residence of Second Home Owners

records of the point of origin of visitors to a real lake, were examined. The lake is a good fishing lake with public access and several master angler records. The map above illustrates county of origin for owners of property around a 300-acre lake in Gladwin County (highlighted in dark color). Using that situation for this example, the population base from which citizens would be asked to contribute consisted of approximately 3 million people. Based upon work by economists and personal research, it was hypothesized one out of every 100 people in that population would contribute 10 dollars annually to preserve and maintain this hypothetical lake. Thus, the contingent value survey yielded a current use/non-use value for the lake (less values listed elsewhere) of $300,000.

Jobs sustained or created

Businesses receiving initial direct sale money use it to pay their employees and to pay other businesses from which they've acquired goods and services. One example would be the pizza maker who pays a dry cleaner money to clean aprons and company shirts. Money spent by the visitor to buy a pizza supports wages at the pizzeria and employees at the dry cleaners. If any of those employees use their wages to buy goods or services locally, then another job will be supported. Not every job is supported 100 percent by this money, but according to experts the end result is 25 to 30 jobs supported by every million dollars of applicable cash flow. That rule is applied in this article.

A similar pattern can be found in money new to the local economy from taxes. Non-residents who earned outside of the local economy buy property and pay taxes.

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Day and overnight visitors pay hotel taxes and gasoline taxes and a variety of other taxes. Some non-property taxes such as hotel and gasoline taxes are returned to the local economy to fix roads or pay for tourism projects.

An examination of the data contained in the table illustrates the following full-time job impact of cash flows in this hypothetical study. Tax collections resulting from non-resident property owners amount to a little over a half million dollars per year. That translates into 12 to 15 jobs. Direct expenditures (minus leakage) by non-resident home owners and tourists and visitors create an estimated secondary effect of about $3.3 million. This translates into another 85 to 102 jobs. So, an initial estimate of jobs supported directly by money imported and shown as a specific impact of the lake in this example lies between 97 and 117 full-time jobs. In a job-scarce market, one can see the importance of such facts and data.

It may be useful to examine the concept of flood protection as used in this example. The value estimate was based upon a real situation wherein a local government unit typically expended money in the spring to clean up debris and other material from annual spring flooding. Not shown in this example is the lost value of real estate, individual lives and nature destroyed if a dam were used to create the lake and the dam should break. In circumstances where a lake is created by a dam, such calculations are warranted and the value of the protection will often be very large.

Remember the chart is illustrative and its conclusions are hypothesized. Hopefully it will be thought provoking and the reader will be able to use it as a beginning point for a further inquiry.

Conclusion

The "present value" of all the components shown in the table is over $93 million. This is far more than the cost to dig a lake or construct a dam ($5 million to $30 million). Interestingly, the major portion of that value is not found in enhanced real estate values (e.g. property located close to the lake). Instead, the major value component is the present value of the cash flow created by second homeowners. This is followed by cash flows from taxes and tourism. In this example, the annual "enhanced" value from cash flows to the local economy account for about two of every three dollars of identified value. This pattern should be expected when a desirable natural feature exists for public use. Had this been a private lake, the major component of value could have been second home expenditures and enhanced nearby property values.

Much as investors view bare land and decide which future use would provide the greatest revenue, proper management of our natural resources can yield superlative financial returns. Given the difficult economic times facing our state and the importance of tourism to its economy, it might be time to fully consider how value is generated from a natural feature and explore the contributive value of components. These value relationships are seldom contemplated in analyses for levying special assessments. That void is what drove this research.

Summary

- ❑ Definitions of value may vary, but there is general agreement on the types of value associated with a natural feature such as a lake.
- ❑ Natural features have value internally and affect property values at some distance.
- ❑ Real estate values consist of two parts: the contributory value of internal components and outside influences on value (externalities).
- ❑ Publicly accessible lakes may attract tourists, non-resident property owners and other users.
- ❑ When a lake is open to the public, it usually creates cash flows new to the local economy.
- ❑ Cash flows new to a local economy sustain existing jobs and create new jobs.
- ❑ Non-public lakes may increase real estate values and generate new (higher) tax cash flows from second homes.
- ❑ There now exists a body of research reliably documenting value components external and internal as discussed herein.
- ❑ Value influences from a lake are almost never limited to only adjacent and nearby properties.
- ❑ Methods of valuing an ecosystem are becoming more sophisticated.
- ❑ Natural features, like new businesses, can be economic development engines.
- ❑ For illustrative purposes, the table below assumes commercial harvesting of wildlife and treasts the fiscal value of the harvest as a separate and unique value.
- ❑ There can be significant issues of "double counting" and other errors when valuing an ecosystem – the table is designed to illustrate components of value and does not scrutinize for methodological conflicts.

Illustrative Component Values of a 300 Acre Lake with 75 acres of wetlands and significant use by public

Component	Current Measure	Annual Cash Flow (20yr term; 2% int)	Present Value
Enhanced *Market Value* - Residential	$25,000,000		$25,000,000
Enhanced *Market Value* - Business	$5,000,000		$5,000,000
Mkt Value of Wetlands (75acres@$3000/acre)	$225,000		$225,000
New real estate values because of lake $100,750/acre		**Total**	**$30,225,000**
Enhanced Taxable Value - 22 Mill Levy ($12.5 Million residential + $2.5 Million business)	$15,000,000	$330,000	$5,504,000
Non-Homestead Tax (additional 18Mills)	$8,333,333	$150,000	$2,502,000
Business Taxable Value - 18 mill levy	$2,500,000	$45,000	$750,000
New property taxes because of lake $29,187/acre		**Total**	**$8,756,000**
2nd Home Expenditures (Direct 30%Leakage)	'400*$8000	$3,200,000	$53,371,000
Visitor Expenditures day trips	400 *$35*1.25	$17,500	$292,000
Visitor Overnight trips	100*$95*1.25	$11,875	$198,000
Total present value of new cash flows from lake $179,537/acre		**Total**	**$53,861,000**
Value of commercial rough fish harvest ($5/lb)	200 days @ 5 lbs/day $5,000	$5,000	$81,757
Value of commercial game fish harvested ($10/lb)	200 days @ 5 lbs/day $10,000	$10,000	$163,514
Value of commercially harvested fur bearing animals	$1000	$1,000	$16,351
Value of commercially harvested birds	(150@$10ea) = $1500	$1,500	$24,527
Commercial harvest from lake $954/acre		**Total**	**$286,149**
Statutory value non-harvested Game Fish Biomass remaining in lake (Part of Public Trust Value)	40lbs/acre@$10 $120,000		
Statutory value biomass non-harvested Rough Fish (Part of Public Trust Value)	40lbs/acre@$5 $60,000		
Annual cost to repair spring flooding	$25,000		
Existence Value of Lake (Pop.of Service area is 3 Million) **Contingent Value Method**	$10 per person year (1%contribution rate)		$300,000
Value of public use and services per acre $1,000		**Total Value**	**$300,000**
Value from lake if all factors could be added directly $311,427 per acre			$93,428,149

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Watershed Management – What Every Riparian Property Owner Should Know and Do

By Tony Groves
Water Resources Practice Leader, Progressive AE

This is the first of a two-part article about watershed management. The focus of this article is on riparian property owners and specific things waterfront property owners should know and do to protect lakes and streams. The second article, that will appear in the next issue of the The Michigan Riparian, will be entitled *Watershed Management – What Every Government Official Should Know*. The second article will look at watershed management from a governmental perspective and focus on watershed planning and water resource protection policy.

What is a Watershed?

A watershed is the land area that drains to a lake or stream. A watershed boundary is typically defined by examining a topographic map that shows the land elevation around a particular lake or stream. Once a watershed boundary has been identified, soils, land cover, drainage patterns and a variety of other features can be evaluated. Watersheds are essentially large catchment basins that convey everything to the lowest point — a lake or stream.

The Importance of Watershed Management

Water quality is often a reflection of the watershed. Lakes and streams with highly urbanized watersheds tend to be of poorer quality than lakes and streams in less developed watersheds. There is often a tendency to view a problem in a lake or stream with no regard for the watershed. For example, excessive plant growth is often cited as a problem in lakes, and millions of dollars are spent annually for aquatic plant control. Yet, in some instances, the increase in plant growth is merely a symptom of another problem, such as fertilizer runoff from the watershed. Until the watershed problem is addressed, the symptom will persist.

Watershed management is especially important in the shoreland areas immediately adjacent to lakes and streams. All too often, trees, shrubs, and brush are cleared from the shoreline. Natural vegetation is then replaced with turf grass and a sea wall is installed. Many riparian spend considerable time and effort removing logs, sticks, rocks, and other natural "debris" from their shorelines not realizing that all the things that have been removed are habitat for plants and animals. There is a whole food web that exists within a natural shoreline. When the habitat is cleared, the food web falls apart.

It has long been recognized that logs, sticks, and other woody structure in river systems provide habitat for a variety of aquatic insects. These insects are the foundation of the food chain and are essential to sustaining a healthy fishery. Recent research indicates that same holds true for lakes. For a riparian property owner, these are extremely important findings and underscore the need to properly manage shoreland property.

Impacts of Shoreland Development

Several recent studies have examined the impact of shoreland development. The recurring conclusion of these studies is that excessive development of shorelands is adversely impacting the quality of our lakes and streams.

A recent national assessment found that poor shoreline habitat was the biggest problem facing the nation's lakes.[1] Further, the national assessment found that lakes with poor shoreline habitat were three times more likely to be in poor biological condition.

In one Wisconsin study, runoff from lawn areas was compared to runoff from undeveloped wooded areas.[2] This study found that the amount of water that runs off a lawn was generally 10 or more times greater than runoff from an undeveloped wooded site. As a result of the increased rate of runoff, the phosphorus and nitrogen transported from the lawn was 10 to 100 times greater than the amount transported from the undeveloped wooded site. The same study found nitrate and phosphorus levels in groundwater under lawns was 3 to 4 times higher than groundwater under wooded sites. The researchers concluded that nutrients from lawns can leach to the water table and ultimately the lake, even if surface runoff itself does not reach the lake.

In a study of the impact of increased development around Higgins Lake in Roscommon County, researchers found that the concentration of phosphorus in near-shore waters was about 1.5 times higher than the concentration found in the deep lake basins, and E. coli bacteria levels in groundwater increased in concentration as building density exceeded 0.40 buildings per acre.[3] Septic systems were cited as the most likely source for increased phosphorus in near-shore lake water and groundwater.

Why the Fuss about Phosphorus?

Phosphorus is the nutrient that most often stimulates the excessive growth of aquatic plants and algae, leading to a number of problems collectively known as eutrophication. Once in a lake, a pound of phosphorus can generate hundreds of pounds of aquatic vegetation. Lawn fertilizers and septic seepage are primary sources of phosphorus.

Cultural eutrophication (accelerated lake aging) was recently implicated as a cause of amphibian disease, limb deformities, and mortality.[4] In this study, increased nitrogen and phosphorus enrichment was linked to the emergence and production of an infectious parasite. Eutrophication promoted amphibian disease by increasing the density of infected snail hosts and by enhancing per-snail production of the infectious parasites which, in turn, infected amphibian larvae. Given that cultural eutrophication is often linked to increased shoreland development, this study could have broad significance.

In a study of 14 lakes in the Upper Peninsula of Michigan and northern Wisconsin, bluegill growth rates were significantly reduced as the intensity of lakeshore residential development increased.[5] The loss of near-shore habitat, specifically

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woody debris such as dead trees, was cited as a possible explanation for the decline in growth rate. The results of this study suggest that the development of lakeshores that results in the alteration of shoreline and near-shore habitat may reduce the capacity of lakes to maintain productive fish populations.

In a study of 40 Vermont Lakes, near-shore habitat in developed and natural shoreline areas was compared.[6] At each site a number of components were measured including shoreline tree cover, shading, the amount and type of woody structure, leaf material, sediment type, and the presence of damselflies and dragonflies. The difference between the developed and natural sites was substantial. Developed areas had less tree cover, less shading (and warmer water), less woody structure, less leaf material, and fewer damselflies and dragonflies (a.k.a. fish food). The conclusion of this study was that although the conversion of natural shorelines to lawns may appear harmless to humans, the physical, chemical, and biological characteristics of near-shore areas are radically changed by this activity. As this change occurs, plants and animals that depend on this near-shore habitat for survival will eventually disappear.

A study of 28 lakes in the Pacific Northwest and a literature review of 24 North American lakes found shoreline development can have direct impact on aquatic habitats, food webs, and ultimately fish.[7] In this study, dramatic declines in terrestrial insects were observed in fish diets as shoreline development density increased. The terrestrial insects provided much greater sustenance to fish than openwater and bottom-dwelling prey. The data from this study indicated a clear link between shoreline development, riparian vegetation, and the prevalence of terrestrial insects in fish diets, and indicated shoreland development can alter food webs. This report concluded that one important step that can be taken to preserve the function of lake food webs is to retain riparian vegetation along shorelines.

What to Know and Do

While the recurring conclusion of recent studies is that shoreland development is altering the quality of our lakes, the take-home message is that these impacts can be minimized. Riparians can make a difference, a big difference! The question is, will the difference be good or bad? Shorelands must be thought of as a shared resource between land and water. To maintain healthy lakes and fisheries, the vegetation and woody structure along the shoreline and in near-shore areas of lakes must be preserved.

What You Can Do

- Maintain a natural landscape with natural vegetation
- Leave or maintain a vegetation buffer (i.e., a greenbelt) strip along the shore
- Do not install lawns on slopes that drain to the lake
- Do not add fertilizer to lakeshore lawns
- Limit the amount of impervious area on your property such as sidewalks and driveways
- Reduce erosion
- Enhance infiltration of runoff from rooftops, driveways, and other impervious areas
- Do not remove woody vegetation from nearshore areas
- Install rain gardens to enhance runoff infiltration

Modified from: Evaluating the Effects of Nearshore Development on Wisconsin Lakes. U.S. Geological Survey. Fact Sheet 2006-3033.

The illustrations on the following pages demonstrate things you can do to protect your lake. Remember, while the individual impacts of shoreland alterations may appear subtle, the collective impact is profound. Shoreland disruption must become the exception rather than the rule.

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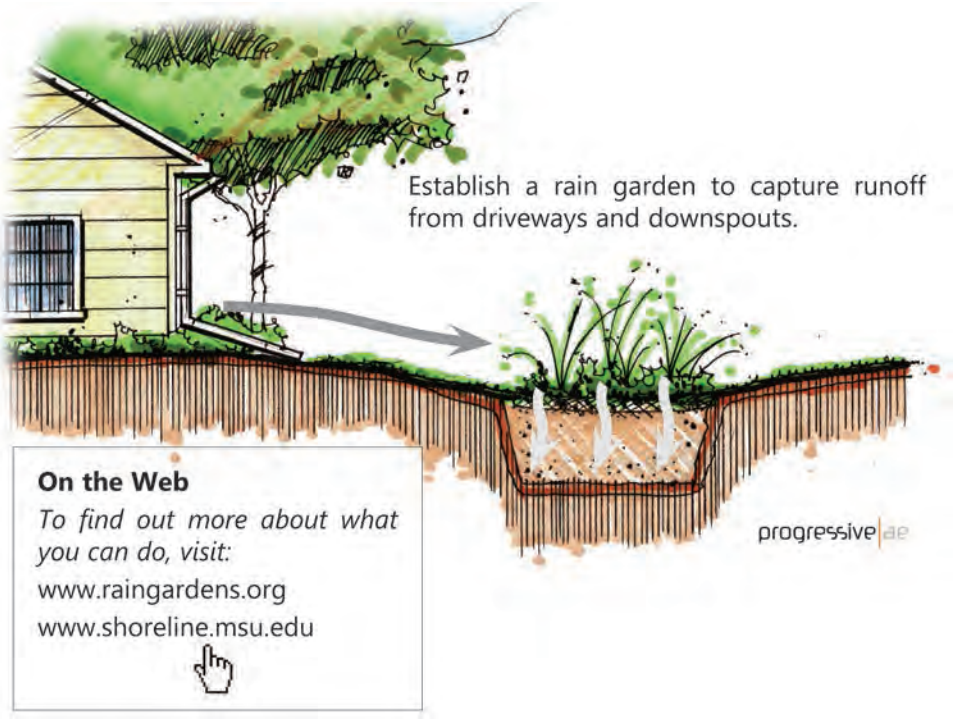

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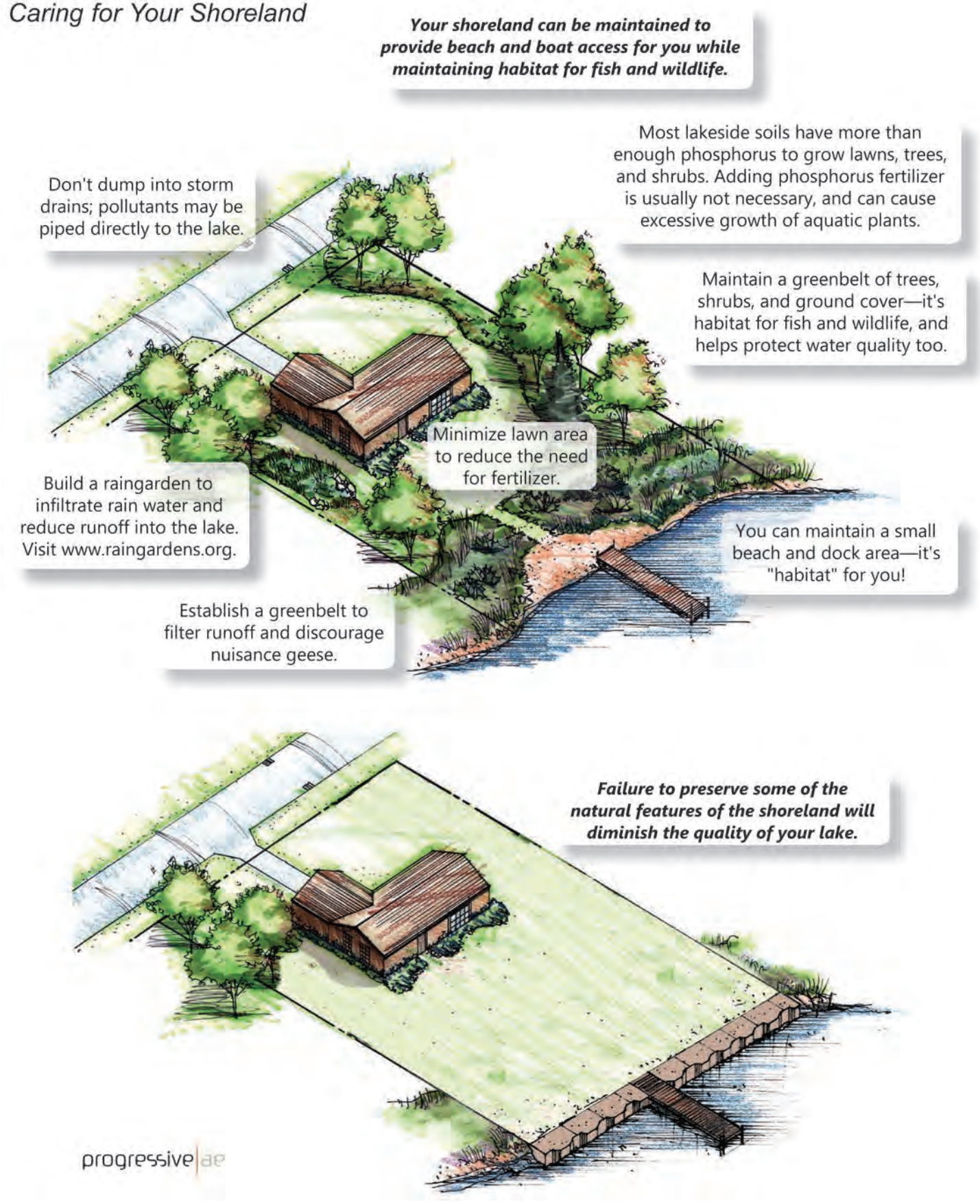
Caring for Your Shoreland



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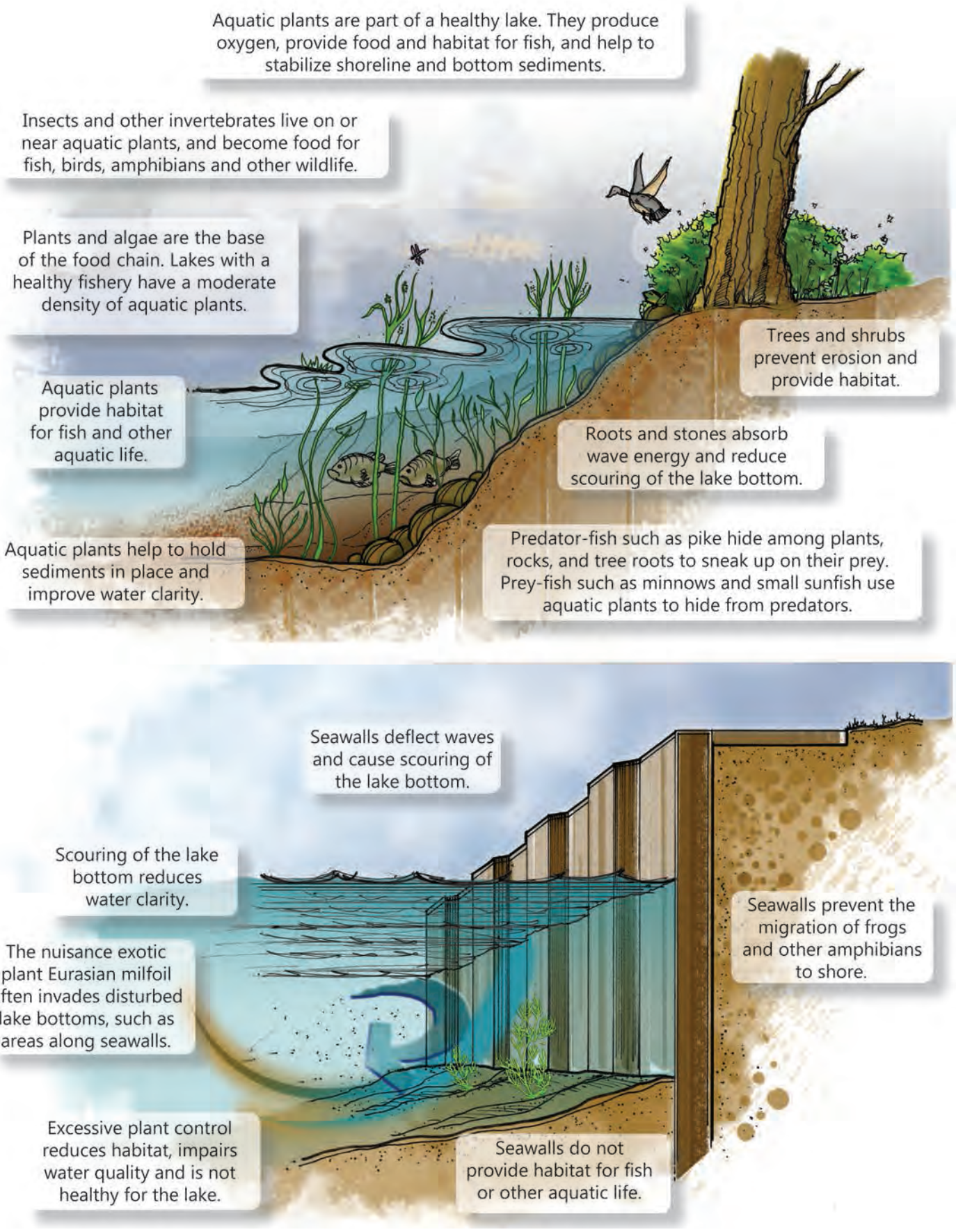

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EDITORIAL:
COMMON SENSE LEGISLATION TO PROTECT MICHIGAN'S FRESHWATER TREASURES

The Michigan state legislature should take notice – the debate within scientific communities regarding the harmful effects of excess nutrients on our lakes and streams ended many decades ago. The facts have been well established and are commonly known to the general public. An over-abundance of phosphorus, a naturally occurring nutrient that is present in limited – though usually viable – amounts in most Michigan soil types, presents a "clear and present danger" to the recreational and economic viability of Michigan's priceless freshwater resources. In a state whose future social and economic success is so clearly reliant on preserving the quality of the thousands of lakes, streams and rivers for which Michigan has become famous around the world, the time for our state's law makers to strictly regulate commercial phosphate-based lawn care products is now! **Michigan Lake and Stream Associations (MLSA) encourages our state legislature to act immediately to pass House Bills 5368 and 5369.**

Much of the phosphorus that enters our lakes, rivers and streams is delivered by storm-water runoff from excessively fertilized residential and commercial real estate turf lawns. This common-sense legislation would strictly regulate the application of phosphate-based lawn care products. Under the provisions of House Bills 5368 and 5369, property owners would be prohibited from applying phosphate-based fertilizer unless they could prove a deficiency of phosphorus through a simple soil test. Those proving a deficiency would be granted a permit to purchase and apply phosphate-based fertilizer in limited amounts. In addition, the legislation would prohibit retailers from displaying phosphate-based lawn fertilizers; only products containing zero phosphate would be displayed. Phosphorus-based products would still be available for sale to those presenting soil-deficiency based permits. The state's agricultural community would be entirely exempted from the provisions of the legislation.

Excessive phosphorus plays a major role in accelerated levels of biological productivity, or the rate of eutrophication, within freshwater ecosystems. Algal blooms (some dangerous to the health of humans and animals), bad taste and odor, decreases in water transparency, explosive growth of aquatic plants, depletion of dissolved oxygen, loss of desirable fish species – as well as the increased likelihood of fish kills – are but a few of the primary and most visible indicators that a lake or stream is suffering from the ill effects of high levels of phosphorus. In the draft report highlighting the findings and conclusions from its 2007 National Lakes Survey, U.S. Environmental Protection Agency scientists report that "poor biological health is 2.5 times more likely in lakes with high nutrient levels."

In a state blessed with so many high quality lakes and streams whose aquatic ecosystems remain highly sensitive to degradation from increased nutrient input, MLSA believes that enacting a state-wide law restricting the use of phosphorus–

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based lawn fertilizer is a singularly important first step in establishing a comprehensive and integrated framework of public policy that will help ensure that Michigan's vast treasure of freshwater resources remain healthy and viable for future generations.

– Scott Brown
MLSA Executive Director

MAKE PLANS TO ATTEND THE MICHIGAN INLAND LAKES PARTNERSHIP 2ND ANNUAL OPEN FORUM

Learn about collaborative efforts to protect Michigan's lakes through this innovative partnership of agencies, local governments, and organizations. Take part in the on-going conversation about lake management priorities and programs across the state. Attendance is free, but please RSVP. Contact Jo Latimore at MSU if you have questions or to RSVP at latimor1@msu.edu or 517-432-1491. The forum is co-sponsored by Grand Traverse County MSU Extension. Visit www.michiganlakes.msue.msu.edu to learn more!

WHEN & WHERE: Thursday, June 24, 2010, 1 p.m. to 4 p.m. at the Grand Traverse County Civic Center in Traverse City

VISIT OUR WEB SITE

As a resource for riparian, lake, water resources and Michigan water law issues, it is difficult to beat the Michigan Lake & Stream Associations, Inc.'s web site at www.mlswa.org. The web site not only chronicles the current and future events and undertakings of MLSA and its related affiliates, but also has countless articles and resources about riparian legal issues, lake association matters, environmental issues, and local government.

Furthermore, the web site is constantly updated. If you have not done so recently, please visit the web site at www.mlswa.org.

For suggestions or improvements to the web site, as well as questions about MLSA, please contact Sharon Wagner at 989-831-5100 or e-mail at swagner@mlswa.org.

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Take Advantage of the Pause

By Clifford H. Bloom, Esq.
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It is no secret that land development in Michigan has been at a virtual standstill for the past few years. That includes new development at Michigan lakes. While municipal budgets have been decimated by state revenue sharing cuts and the poor economy in general, the corresponding workload for municipal officials involved with zoning, planning, and development has also decreased. Accordingly, this is the perfect time for riparians, lake associations, environmental groups, and other organizations that care about lakes, rivers, and water resources in Michigan to urge local municipalities (townships, villages, and cities, as well as counties with countywide zoning) to review and update their zoning ordinances, other ordinances, and master plans as they relate to waterfront areas. Now is a good time to undertake such an ordinance and master plan review while the developmental pressure is off.

Unfortunately, the ordinances and master plans of many municipalities are woefully inadequate when it comes to protecting any lakes, rivers, and other water resources within their jurisdictional area. Now is a good time to remedy that deficiency, rather than wait until a disastrous waterfront development proposal is knocking at your municipality's door sometime in the future.

Both the Michigan Lake & Stream Associations, Inc. and I have stressed for the better part of two decades that the single most important (and effective) regulation for protecting riparians and water resources in Michigan is the presence of a well-drafted and reasonable anti-funneling/anti-keyholing provision contained in the local zoning ordinance (or if the local municipality does not have a zoning ordinance, in a standalone police power ordinance). With regard to such regulations, municipalities in Michigan tend to fall into one of several categories. A significant number (although still a relatively small minority of municipalities in Michigan) have anti-funneling regulations. Unfortunately, however, the majority of municipalities in Michigan with lakes, rivers, and other water resources do not have anti-funneling regulations. Furthermore, many of the municipalities with anti-funneling ordinance provisions have regulations that are woefully inadequate. In fact, in a few cases, the substandard anti-funneling regulations actually encourage funnel and other detrimental developments at lakes.

Some anti-funneling provisions are unduly complicated and unwieldy. Rather than use straightforward language that deals with the number of dwelling units that can have access to a lake or other body of water, some regulations utilize an elaborate set of definitions that seek to prevent funneling only in specific instances. For example, some ordinances define an "access property" (or the equivalent), require that the access property not have a dwelling thereon, and mandate that it be of a certain minimum size. Given the complexity of such regulations and potentially conflicting definitions, it is much more likely that a court will invalidate the provision or that there will be a "loophole" that the developer of a funnel project can exploit.

The best anti-funneling language tends to be fairly straightforward. A good example for the "core" of an anti-funneling regulatory scheme is as follows:

1. In all zoning districts, there shall be at least _____ (___) feet of lake, river, or stream frontage as measured along the ordinary high water mark of the lake, river, or stream for each single-family home, dwelling unit, cottage, condominium unit, site condominium unit, or apartment unit utilizing or accessing the lake or stream frontage.
2. Any multiple-unit residential development in any zoning district that shares a common lake, river, or stream front area or frontage may not permit lake, river, or stream use or access to more than one (1) single-family home, dwelling unit, cottage, condominium unit, site condominium unit, or apartment unit for each _____ (___) feet of lake, river, or stream frontage in such common lake or stream front area, as measured along the ordinary high water mark of the lake, river, or stream.
3. Any multiple-unit residential development shall have not more than one (1) dock for each _____ (___) feet of lake, river, or stream frontage, as measured along the ordinary high water mark of the lake, river, or stream, in any zoning district in the township. All such docks and docking or mooring shall also comply with all other applicable Township ordinances.
4. The above restrictions shall apply to all lots and parcels on or abutting any lake, river, or stream in all zoning districts, regardless of whether access to the lake, river, or stream waters shall be by easement, park, common-fee ownership, single-fee ownership, condominium arrangement, license, or lease.
5. If a property is located within a zoning district where the minimum lot width requirement is greater than _____ (___) feet, the minimum water frontage requirements of subsections 1, 2 and 3 hereof shall be increased so as to equal the minimum lot width requirement of the zoning district in which the property is located.

Ideally, a municipality should not only amend its zoning ordinance to include a well drafted anti-funneling regulation provision (that applies to all lakes and rivers within the municipality, regardless of the zoning district involved), but also should adopt a standalone dock and boat launching ordinance. Lake access and usage regulations contained in

continued on page 19

continued from page 18

both a municipal zoning ordinance and a standalone police power ordinance can complement each other, potentially govern slightly different topics, and can serve as a "failsafe" procedure (that is, if the provision of one ordinance is invalidated, there is a backup provision in the other ordinance; or, if a developer is able to exploit an unanticipated loophole in one ordinance provision, the other ordinance might "close the barn door").

Riparians should also urge their local municipal officials to take advantage of the current lull in development applications in other ways as well. Other provisions of the local zoning ordinance involving lakes and bodies of water should be reviewed and updated (for example, overlay zones, greenbelts, zoning escrow fee policies, water setbacks, and minimum lot size requirements). Master plans should also be reviewed and updated as well. If the municipality has its own junk ordinance, dangerous and dilapidated building ordinance, nuisance ordinance, and/or blight ordinance, those ordinances should be reviewed and updated. If a municipality does not have all those ordinances, it should consider adopting them. If a municipality does not have a local wetlands ordinance, land division ordinance, private road ordinance (or a provision governing private roads in its zoning regulations), wind generating systems ordinance, or outdoor furnace ordinance, the municipality should consider adopting such ordinances or, if the municipality does have such ordinances, updating them.

If your municipality claims that it does not have the funds to review and update its zoning ordinance, other relevant ordinances, or the master plan, it is permissible for riparians and lake associations to donate funds to a municipality to be used for a particular purpose, such as for drafting and adopting advantageous amendments to a zoning ordinance (i.e., adding or tightening up anti-funneling regulations).

With regard to anti-funneling regulations, helpful ordinance provisions, and similar matters, MLSA has a variety of different resources available. For more information, please visit the MLSA website at www.mlswa.org. In addition, it is always wise for riparians and lake associations to consult with legal counsel who is knowledgeable about riparian matters. Since riparian (water) law is a highly specialized area, make sure that your legal counsel is well-versed in that area.

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

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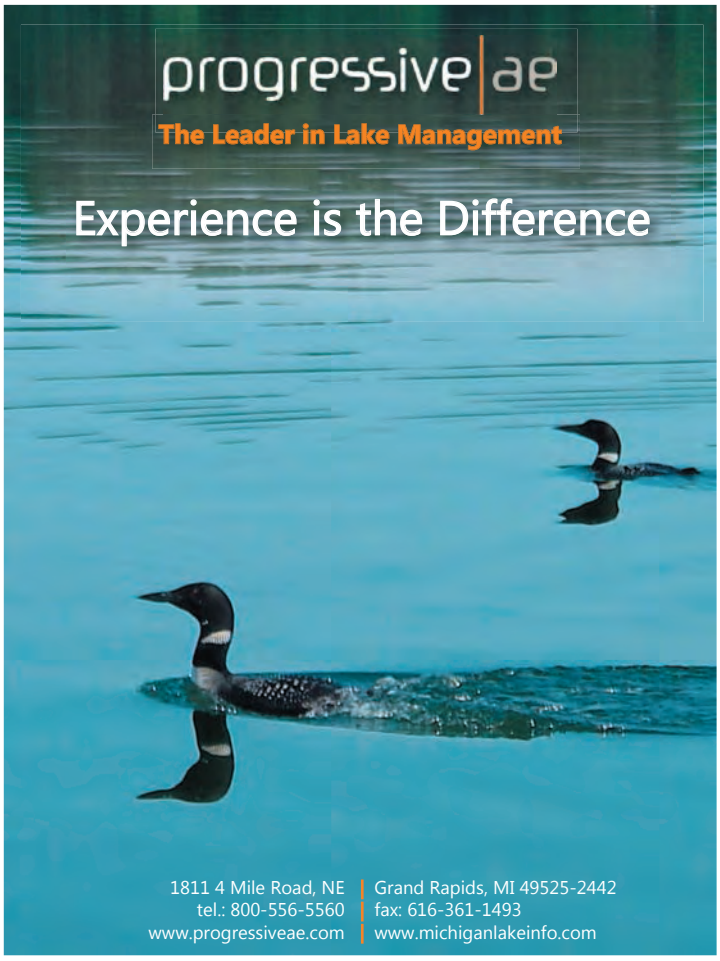

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MLSA & MWA Working For You: Amicus Briefs

The Michigan Lake & Stream Associations, Inc. (MLSA) and the Michigan Waterfront Alliance (MWA) have recently filed pro-riparian rights amicus curiae briefs in two important Michigan appellate court cases. MLSA filed an amicus curiae brief in *Benninghoff v Tilton* (unpublished decision, Case No. 284637, 2009 WL 3789981), a case that the Michigan Court of Appeals decided on November 12, 2009. That case had both convoluted fact and legal issues situations. The main two issues in the case were whether *Jacobs v Lyon Twp* applied to road-ends at the Great Lakes as well as inland lakes. Under the *Jacobs* decision, road-ends at inland lakes cannot be used for nontravel purposes such as lounging, sunbathing, picnicking, private boat moorage, overnight boat moorage, overnight boat docking, etc. The second issue in the case was whether members of the public and the local municipality can thwart the *Jacobs* rule if the general public has misused a road end for a significant period of time and the municipality assists with such wrongful action. Or put another way, if nearby riparian property owners do not challenge in court unlawful road end activities occurring at a lake for a certain period of time, does the running of the statute of limitations preclude a later lawsuit to stop the unlawful activities at the road end? In its unpublished decision in *Benninghoff v Tilton*, the Court of Appeals issued two general holdings of interest. First, the Court essentially held that *Jacobs v Lyon Twp* does generally apply to road ends at the Great Lakes. Second, it held that the applicable statute of limitations for stopping wrongful activities at road ends is 15 years.

The Court of Appeals indicated that theoretically, the general public could obtain permanent rights to use road ends at lakes in violation of the *Jacobs* rule if such activity occurs for in excess of 15 years and the local municipality actively facilitated such unlawful use. However, the Court of Appeals remanded the case back to the local trial court to determine whether 15 years had passed and whether the activities by the local township rose to the level of actively facilitating the unlawful use.

The MWA (together with the Higgins Lake Property Owners Association) also filed an amicus curiae brief asking the Michigan Supreme Court to review the disastrous decision by the Michigan Court of Appeals in 2000 *Baum Family Trust v Babel*, 284 Mich App 544; 733 NW2d 44 (2009). That was the case where the Court of Appeals held that the first-tier lot owners along platted parallel roads at lakes are not riparian, despite 100 years of Michigan appellate case law to the contrary. A few months ago, the Michigan Supreme Court agreed to hear the *2000 Baum Family Trust* appeal. A new, updated amicus brief will urge the Supreme Court to reverse the disastrous decision of the Michigan Court of Appeals. The final decision by the Michigan Supreme Court could take anywhere from six to 18 months to be released.

For more information about the *2000 Baum Family Trust v Babel* case, please visit the Michigan Lake & Stream Associations, Inc. website at www.mlswa.org.

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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.

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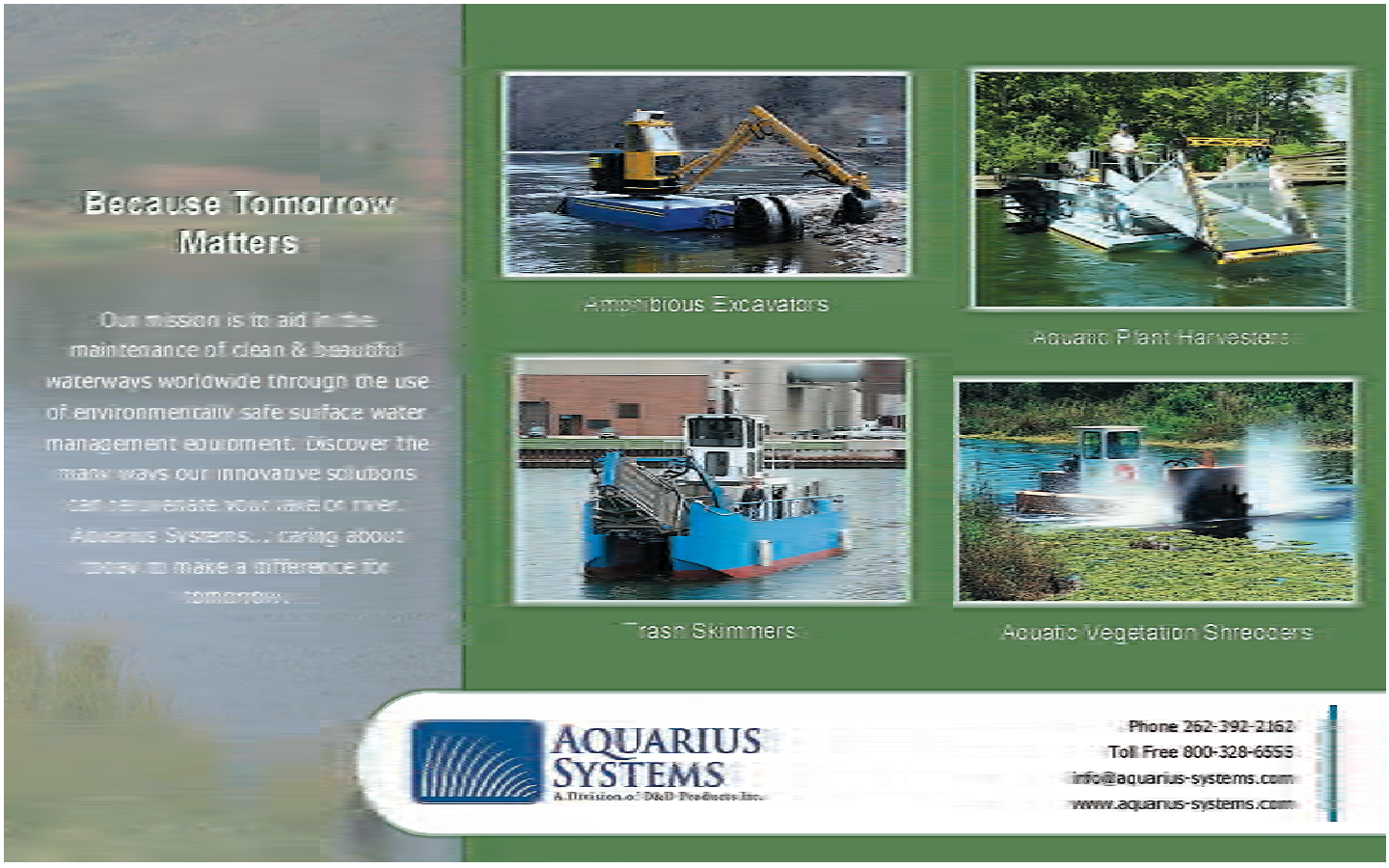

Miscellaneous News

Joining AG Cox in the Asian carp suit

The Michigan Waterfront Alliance, the Higgins Lake Property Owner's Association and Michigan Lake and Stream Associations have joined forces to file an amicus brief with the U.S. Supreme Court supporting Michigan Attorney General Mike Cox's position in his lawsuit filed on behalf of the State of Michigan intended to force the federal government and the state of Illinois to utilize "all available means" to prevent two species of Asian carp from entering Lake Michigan and subsequently all Great Lakes as well as the inland waters of Michigan. The lawsuit is supported by many other environmental advocacy groups, several other Great Lakes states and the Province of Ontario. To learn more visit:

www.stopasiancarp.com/michlawsuit.html

Atty. Gen. Cox's pro-active and multi-faceted campaign is designed to prevent this imminent and grave biological threat from entering our Great Lakes eco-systems and inland waters.

Shoreline partnership program

The Michigan Natural Shoreline Partnership, an MDNRE facilitated collaborative partnership whose mission "is to promote natural shorelines through use of green landscaping technologies and bioengineered erosion control for the protection of Michigan inland lakes," has held the first classroom training sessions for landscape, marine and natural resources practitioners desiring to become Michigan Certified Natural Shoreline Professionals (MCNSP). Student candidates will complete a written examination and a bio-engineered shoreline technology-based training exercise to complete program requirements. Graduates will highlight the achievement of the first goal of the Partnership – the creation and posting of a list of trained and certified natural shoreline contractors ready and able to complete lakefront property shoreline restoration projects. Bioengineered shoreline restoration technologies will provide an outstanding alternative for lakefront property owners searching for ways to prevent shoreline erosion, as well as restoring critical natural and lake-friendly features to shorelines. To learn more about this partnership and restoring your shoreline, visit:

www.michiganlakes.msue.msu.edu/LakeManagement/ShorelineDevelopment.aspx

U.P. citizens fight invasive species

A determined group of inland lake stakeholders in Michigan's western Upper Peninsula is pro-actively working to control the spread of aquatic invasive species in the areas inland lakes. The Invasive Species Control Coalition of Watersmeet (ISCCW), whose mission is "to assure that waterways and lands in Watersmeet Township ... are environmentally sound, free of invasive species, and suitable for a variety of recreational uses for the benefit of residents of the community at large" was formed as a 501(c)3 non-profit organization in 2007 and has received several grants to fund its inland lake activities. The group's various projects include the purchase of a portable high-pressure, hot-water boat disinfection trailer, posting of aquatic invasive species awareness billboard, and distributing educational materials. For more information, visit www.lakeguards.org.

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- 2000 Baum Family Trust Riparian Legal Case
- Mi Natural Shoreline Management
- New Eurasian Water Milfoil Control Methods
- Mi Sea Grant "Clean Boats, Clean Waters" Program
- Aquatic Invasive Species Management
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- Michigan Inland Lakes Partnership
- Public Trust Doctrine for Michigan Waters

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 now for additional information and 49th Annual Conference registration information.

For more info visit our web site:

www.mlswa.org

Native Aquatic Plants: The Key to Healthy Lakes

Native 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 lakes healthy.

The Michigan Department of Natural Resources and Environment (MDNRE) Conservation Report 38, *Conservation Guidelines for Michigan Lake and Associated Resources*, states:

"the removal of native aquatic vegetation is detrimental to lakes because vegetation forms the base of the food chain and is a principal habitat component for aquatic life. Removing native vegetation destroys micro-habitats, shortens food chains, opens the lake bed to invasion by non-indigenous species, and opens the shoreline to wave erosion. Removal of native vegetation promotes the spread of aggressive, non-indigenous species."

Michigan Lake and Stream Associations, Inc., is a strong advocate for preserving and protecting inland lake eco-systems. As riparian property owners, one of the most important things you can do to protect the quality of your lake is to allow the native aquatic plants that thrive on or near your shoreline to flourish.

For more information regarding the management of Michigan's inland lake resources and the importance of native aquatic plants, download a copy of the MDNRE Conservation Report 38 at the Michigan Lake and Stream Associations web site (www.mlswa.org) and look under "Lake and Stream Science and Management."

Lake Maps By County

Michigan boasts more than 11,000 inland lakes. Now you can access 2,700 inland lake maps on the Michigan Department of Natural Resources and Environment (MDNRE) web site. Just click on a county for a list of inland lakes in that county. You can find a specific lake in a given county and view a PDF map of each individual lake that details items such as acreage, shore features, bottom content, outlines, contours and more. The direct URL address is http://www.michigan.gov/dnr/0,1607,7-153-30301_31431_32340--,00.html. Or you may navigate to the map by visiting www.michigan.gov/dnre and clicking through the "Forests, Lands & Water" section.

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A Clear-Cut Riparian Victory in Barry County

By Clifford H. Bloom, Esq.
Law, Weathers, P.C.
800 Bridgewater Pl • 333 Bridge St NW
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Rutland Charter Township in Barry County, Michigan, refused to enforce the anti-funneling/anti-keyholing lake access regulations contained in its own zoning ordinance. After certain backlot property owners were prevented from utilizing docks and permanent boat moorings at several private lake parks on Algonquin Lake in an earlier Barry County Circuit Court action, some lakefront/riparian property owners who were sympathetic to the backlot owners allowed the backlot owners to maintain seasonal boat moorings at private residential riparian properties.

Other riparians called on Rutland Charter Township to enforce its lake access regulations. Using convoluted logic, Rutland Charter Township officials asserted that the anti-funneling regulations in the township's zoning ordinance only applied to developers and that allowing backlot property owners to maintain docks and boat moorings along the riparian properties of others was simply a permissible accessory use of the lakefront property.

In an unpublished decision dated January 26, 2010, the Court of Appeals in *Adkins v Rutland Charter Twp* (Case No. 286888), dismissed Rutland Charter Township's baseless arguments and held that the practice by some riparian property owners of allowing backlot property owners to dock boats along the riparians' lake frontage was in clear violation of the Rutland Charter Township Zoning Ordinance.

The riparian property owners who brought their successful lawsuit had hoped that Rutland Charter Township officials would now fulfill their oaths of office, enforce the township's zoning regulations, and take enforcement action against any backlot property owner who attempts to moor boats at the riparian property of another in violation of the zoning ordinance as well as against the facilitating riparian property owner who is also potentially violating the zoning regulations.

Unfortunately, it appears that Rutland Charter Township officials will continue to waste taxpayer money (in an attempt to benefit a few favored backlot owners) by attempting to have the Michigan Supreme Court take a further appeal of this clear-cut case.

Fish-Egg Disinfectant Shown To Prevent Disease Transmission

A disinfection solution presently used for salmon eggs also prevents transmission of the virus that causes viral hemorrhagic septicemia or VHS – one of the most dangerous viral diseases of fish – in other hatchery-reared fish eggs, according to new U.S. Geological Survey-led research.

VHS has caused large fish kills in wild fish in the U.S., especially in the Great Lakes region, where thousands of fish have died from the virus over the last few years. The disease causes internal bleeding in fish, and although in the family of viruses that includes rabies, is not harmful to humans. Thus far, the virus has been found in more than 25 species of fish in Lakes Michigan, Huron, Erie, St. Clair, Superior and Ontario, as well as the Saint Lawrence River and inland lakes in New York, Michigan and Wisconsin.

Effective disinfection methods are critically important to natural resource agencies that collect eggs from wild fish stocks and private aquaculture because the spread of the virus to a fish hatchery could be devastating, said Mark Gaikowski, a USGS researcher who led the USGS and U.S. Fish and Wildlife Service research team.

"If VHS virus is introduced into the aquaculture industry, it could lead to trade restrictions, as well as direct economic losses from the disease," Gaikowski noted. USGS and USFWS researchers tested the effectiveness of using iodophor disinfection in walleye and northern pike eggs and found that it eliminated active virus from fertilized eggs. Iodophor disinfectant solutions contain iodine formulated for use on fish eggs. The researchers also found that although some of the disinfection treatments reduced hatch, iodophor treatment at 90 minutes after fertilization occurred did not alter egg hatch or fry development.

photo courtesy of U.S. Geological Survey
USGS microbiologist Maren Tuttle counts hatched Northern pike fry.

Experts fear the disease could potentially spread from the Great Lakes into new populations of native fish in the 31 states of the Mississippi River basin. Regulatory agencies in the U.S. and Canada have already placed restrictions on the movement of fish or fish products that could pose a risk for the spread of VHS virus to regions outside of the known geographic range.

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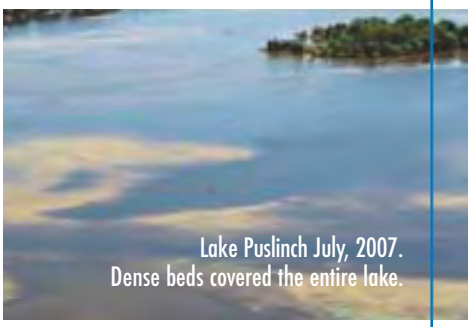

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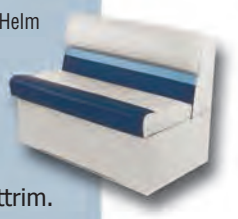

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