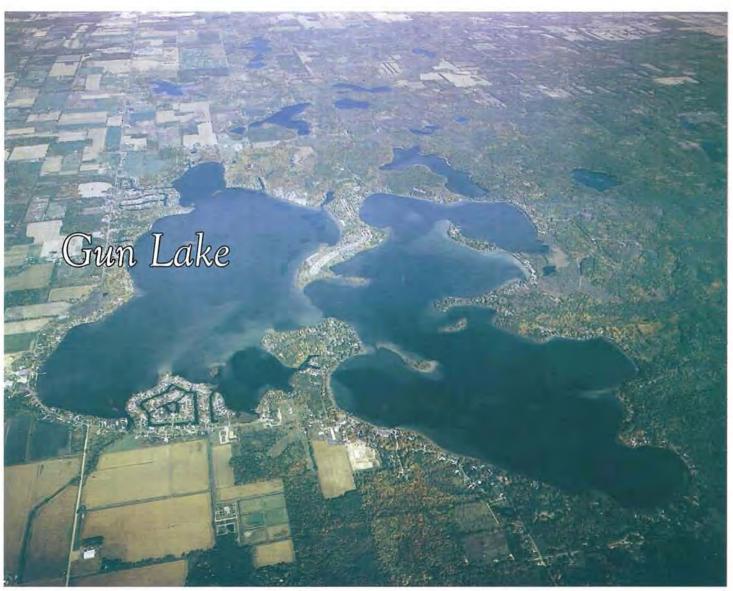


DEVOTED TO THE MANAGEMENT AND WISE USE OF MICHIGAN'S LAKES AND STREAMS

Published Quarterly - February, May, August and November

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.



Gun Lake in Barry County

Gun Lake is located in Orangeville and Yankee Springs townships in Barry County, Michigan. The surface area is 2,700 surface acres, with a maximum depth of 70 feet. It is known for its walleye, smallmouth and largemouth bass, Northern pike, perch and bluegill fishing.



www.mi-riparian.org



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

THE MICHIGAN RIPARIAN magazine is published quarterly and is mailed to subscribers during February, May, August and November.

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SUBSCRIPTION RATES Individual copy per issue: \$10 each 2-9 copies per issue: \$9 each 10-49 copies per issue: \$8 each 50 or more copies per issue: \$7 each

ADVERTISING RATES
Advertising rates sent upon request.
Advertising deadline is by the 10th of
the month preceding publication, i.e.
by April 10 for the May issue, etc.

Printed by J.B. Printing, Kalamazoo, Michigan

Cover photograph of Gun Lake was provided by Doyle Smith, President, Gun Lake Protective Association

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FROM THE PUBLISHER



Don Winne

Townships be gone?

During the ongoing Michigan budgetary debates, some legislators have floated the idea of taking away power and authority from Michigan townships, or even eliminating them altogether. These are terrible ideas. Why should Michigan riparians care about township government? Because the overwhelming majority of lakes, rivers, and streams in Michigan are located in townships—not cities or villages.

Township government in Michigan is based on the Jeffersonian ideal that the government that is lowest and closest to the people governs best. Michigan has 83 counties. The author-

ity and functions of county governments are rather limited—jails, sheriff departments, county roads, mental health, waste management, etc. At the sub-county level, there are three types of local government—cities, villages, and townships. Cities and villages generally cover more densely-populated areas, provide more services, and have higher tax rates. Townships tend to be located in lower density, rural areas, provide fewer services, and have lower tax bases. Townships are the "default" form of government—if a city or village has not been formed, then the local government involved will be a township government.

If townships were curtailed or eliminated, it is likely that your county's authority and powers would be enhanced. Also, consolidation of power away from townships and to county government would greatly dilute your voting power and lessen any impact your voice might have. For example, if there is a disastrous development proposed for your lake, you can usually turn to elected township officials who are likely your neighbors; people who understand local issues. Your lake association might represent 10% of the registered voters in your township, such that township officials would likely take notice of your concerns and their ability to be reelected. If zoning, ordinance powers, etc., are turned over to the county government, how much impact do you believe your voice and vote would have on county officials? In that case, your lake association might represent 1% (or less) of the registered voters within the county. Does anyone really believe that county government can perform township functions more efficiently or cheaper? It has been suggested that the intent behind some legislators' discussions about curtailing or eliminating townships is simply a disguised attempt to increase county personnel who will likely be union members. Some counties have already gone on record as stating that they do not want any township responsibilities transferred to the county level.

There are some other matters which you should ponder: If you have to appeal your property tax increase, would you rather do so a few miles away at your local township offices before friends and neighbors, or, would you prefer to drive 20–30 miles and wait in long lines to appeal to a county official or body? Can you really trust county officials to protect your lake, and will county officials have any real interest in keeping in place lake access regulations, anti-funneling regulations, etc., to protect lakes if zoning is shifted to the county level? What if the county needs to allow a less than desirable development or mobile home park somewhere in the county and figures your township would be the perfect place given that your area has few voters? If you need a building or zoning permit, would you rather go to the county building far away or to your local township offices? You get the point.

The argument for curtailing or eliminating the authority of townships is that "consolidation" will save money and promote efficiency. Yes, and I have some toxic wasteland to sell you! Local township government is probably the most efficient and responsive level of government there is. In most townships, township officials serve for ridiculously low wages and many of the citizen volunteers on township boards/committees serve for free or almost so. There are no multiple layers of bureaucracy or government at the township level. At the county level, things tend to be the opposite. Furthermore, county employees are often unionized, have generous pension and benefit packages, etc. Curtailing or eliminating township government will likely have exactly the opposite effect than that which is advocated by its proponents: Efficiency will go down, costs will go up, bureaucracy will grow and government will be less responsive.

Many townships across the state are already working jointly with other townships (as well as cities and villages) to spread costs and efficiencies by way of joint fire departments, joint zoning and planning endeavors, joint policing, and many other matters.

If you agree with Thomas Jefferson that local control is very important and that the government which governs least and is closest to the people governs best, contact your local member of the Michigan House of Representatives and Senate and tell them how you feel about township government. While you're at it, you may also wish to give your Michigan Senator an earful about the disastrous backlotters' public road-end bills which recently passed the Michigan House of Representatives; that legislation is now in the Michigan Senate's hands (see my editorial in the May 2007 issue.

— Publisher Don Winne

Dedicated funding needed

Submitted by Mark Coscarelli Public Sector Consultants

Once perceived as almost entirely beneficial, dams are seen more realistically today as having both positive and negative effects. Over the last decade, growing concern about dam safety fisheries, environmental quality, and the aesthetic characteristics of rivers has become more widespread in the state. Moreover, reconnection of tributary rivers and their watersheds continues to emerge as a significant component of larger, regional initiatives that focus on Great Lakes restoration.

The purposes dams serve often evolve from their original intent, though most dams were constructed originally as local infrastructure projects to drive economic development activities. Despite their potential negative effects on natural river function, some dams still provide benefits to society. Some dams form reservoirs that provide vital water supply to municipalities and industries. Similarly, impoundments created by some dams provide valuable uses where water-based recreational opportunities are otherwise lacking, such as boating and fishing. These amenities may increase property values, thus adding to the tax base for local governments. Impoundments in some areas also provide valuable wildlife habitat and refuge.

Nevertheless, many dam owners do not have the financial capability to maintain either the original function of the dam or its current purpose, or remove the dam. Dam owners are often required to repair antiquated structures without sufficient knowledge about potential removal options or finding the financial resources necessary to accomplish it. Likewise, public entities that own dams face similar financial constraints when considering dam removal or repair.

In Michigan, a majority (93%) of the approximately 2,500 dams in the state were constructed more than 25 years ago. Since the average life expectancy of dams is 50 years, this suggests that over the next 25 years, many of these dams will need to be removed or repaired due to their age. Some of these dams have already been abandoned by their owners, and others may be abandoned if the costs for repair or removal are prohibitive.

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The lack of dedicated funds for dam removal and repair portends an increasing problem as dams across Michigan age and the need to make reinvestment decisions becomes more acute. As we improve our understanding of the adverse impacts that dams have on rivers, fish and wildlife, as well as water quality, selective removal of dams can be a simple, cost-effective way to alleviate both the financial burden and the environmental and safety problems old dams present. It would be unfortunate and short-sighted to miss this opportunity to proactively determine the future of Michigan's old dams. However, it appears that without state and federal support, it will be difficult for willing owners to take action and, as a result, dam failure will become more common, placing at greater risk public safety, health, welfare, and the environment. In Michigan, there are nearly 120



This dam, on the southern branch of the Au Sable River, was built in the early 1900s to maintain the water level in Lake St. Helen.

identified dams in need of an estimated \$50 million to address repair and/or removal issues. Resource managers estimate that the numbers are likely much higher, but that they lack detailed

continued on page 9

RECOMMENDATIONS

- Create a dedicated state funding program for dam renabilitation and dam removal in Michigan. This fund should include consideration of direct grants in addition to the capitalization of a low-interest loan program.
- Examine and streamline the current regulatory process in MDEQ and MDNR for dam removal by reconciling the current overlap between conflicting state and federal regulations (e.g., wetlands protection, sedimentation control).
- Enhance Michigan's geographic information system and dam database to be used as a prioritization tool for dam removal and river restoration, including fisheries management.
- Require that any dams repaired using public funds include measures to mitigate resource damages that occur as a result of the dam's continued operation. This includes, but is not limited to, examining opportunities for enhancing fish passage and providing safe portage paths.
- Develop and disseminate an information brochure as part of routine dam safety and permit correspondence by the MDEQ. The brochure should focus on the potential cost savings and community benefits that can result from dam removal.
- Develop a river restoration team comprised of representatives from MDEQ and MDNR that can facilitate outreach and information exchange for dam owners wishing to remove or modify a dam.
- Encourage MDEQ to emphasize the need for local communities to assess their dam(s) as part of comprehensive watershed management planning.
- Explore new and expanded public/private partnerships with nonprofit organizations (e.g., Michigan River Network) to help maximize distribution of information and leverage resources for river restoration and dam removal.

STATE NEEDS DEDICATED PLINDS FOR INCHERIORITY PROJECTS

With so many dams nearing the end of their useful lives, Michigan needs a new way of assessing the aging dams, the public value of our dammed and free-flowing rivers, and the significant monetary investment that must be made in this aging infrastructure. Dam owners, from the private or public sector, will need assistance to plan, finance and execute projects that rehabilitate or remove these structures. At the same time, until dedicated funds for these activities are developed, there are limited opportunities to access existing pools of funding by using creative thinking and a willingness to combine a variety of funding sources. These existing funding pools are not nearly sufficient to address all current and future needs, but they may improve the current situation by helping to finance high-priority projects.

Boater's Advisory: Zebra mussels in Michigan

WARNING: Zebra mussel larvae and adults can infest engines, cooling systems and attach to boat hulls if left in water. Mussels can cause navigation markers to sink.

HOW TO PREVENT the spread of zebra mussels to inland waters: Always inspect your boat, motor, trim tabs and trailer. Adult zebra mussels can be easily spotted and removed by thoroughly scraping. In earlier stages, mussels may not be as noticeable. Pass your hand along the underside of the boat. Always drain bilge water, live wells and engine compartments. Disinfect all wells, anchors, bait buckets, etc., with chlorine and water (1:10). Flush engines with tap water and disinfect. Leaving your boat out of the water during hot weather for 10 days wll kill zebra mussels.

Pro-backlotter road-end bills pass the Michigan House, head to Senate

In late June, the Michigan House passed the public roadends bills being pushed by backlot property owner groups by a vote of roughly 61-48.

The legislation is opposed not only by the Michigan Lake & Stream Associations, Inc., (MLSA) and the Michigan Waterfront Alliance (MWA), but also by the Michigan Townships Association, the Michigan Department of Environmental Quality and other responsible groups.

Although the backlotters' bills underwent a number of changes in the House before the bills were passed by that legislative body, MLSA, MWA and many other groups opposing the bills believe that they constitute bad public policy, would reward past law-breaking, will cause numerous problems for riparian property owners and would likely be unconstitutional.

Anyone who feels strongly about these bills should contact their Michigan Senator as soon as possible and let them know how they feel regarding this matter. For more information about these bills, please visit the MLSA web site at www.mlswa.org.



Learn the appropriate use of aquatic herbicides

Why use herbicides? This pertinent question faces many lake managers, but before we address it, let's consider some background on the need for managing aquatic vegetation regardless of the control technique used. It is generally accepted that aquatic plants play a beneficial role in the function and "health" of water-bodies in a variety of ways: producing dissolved oxygen (DO), cycling nutrients, driving the food chain, dampening wave action and currents, lowering water turbidity, and providing habitat for fish and wildlife. However, the excessive growth of vegetation (and this is often caused by exotic weed species such as Eurasian watermilfoil, hydrilla, water hyacinth, etc.) can result in undesirable impacts to aquatic ecosystems. For instance, the normal nighttime respiration of an overabundance of submersed vegetation can severely deplete DO levels, particularly during summer months or other periods of elevated water temperatures. In addition, thick plant stands reduce light penetration and restrict water circulation patterns to the point of producing extreme temperature, pH and nutrient stratification in the affected water column. These major and other more subtle consequences of too many plants can have deleterious effects on the full range of aquatic organisms - fish, invertebrates, plants, etc. The result is often a reduction in the biodiversity of water-bodies.

Once an overall management program has recognized a need for controlling a nuisance plant infestation and the specific target plant has been identified, the process of selecting the most appropriate vegetation control method can be undertaken. In many situations, the decision to use herbicides is based on the following advantages:

a) predictable efficacy over a defined time period and within a specific target location;

b) selective control of target vegetation;

c) well-characterized and minimal risks with respect to human health and the environment;

d) cost-effectiveness.

However, in today's climate of environmental awareness, nonchemical methods (e.g., biological, mechanical and physical) should be considered as part of any comprehensive vegetation management assessment. An optimal management policy considers all options. As is the case with chemicals, these techniques will have some limitations and some negative ecological impacts associated with their deployment.

CONDITIONS FOR HERBICIDE USE

As an example exercise, consider that the resource manager of a 500-acre lake is confronted with the submersed exotic, Eurasian watermilfoil, which has recently infested 25 acres of a littoral zone in several covers and threatens encroachment into other areas. Where it is well-established in these coves, milfoil has created a typical thick stand with dense surface canopy, interfering with water use activities and displacing indigenous plants. Through a management plan process, a decision has been made to quickly and selectively remove milfoil from targeted treatment areas. Additional criteria for selecting an appropriate treatment method are that the control of milfoil be maintained for several growing seasons so

that the native plant community can re-establish, and that

By Dr. Kurt Getsinger

U.S. Army Research and Development Center originally published in Land and Water, July/August 1998

the selected method be environmentally safe and cost-effective.

All potential control methods should be considered to achieve the management goal in the above example. Every operational method, including herbicides, can have some degree of environmental impact associated with its use. These impacts can include injury or elimination of nontarget vegetation, effects on water quality, and off-target treatment effects. In addition, all control methods should be evaluated with respect to efficacy and expense.

If weighed against problems associated with biological and mechanical/physical control under the conditions of this hypothetical management scheme, the use of herbicides would be the most suitable control technique for milfoil. However, there are some crucial issues that must be addressed when designing and implementing this type of chemical control program. Treatment of submersed plants is the most difficult of all chemical applications and, as such, requires particular attention to product and site-specific factors.

SELECTION OF APPROPRIATE HERBICIDE

It is imperative that the right herbicide, in its most suitable formulation, is chosen to satisfy the treatment objectives. Knowledge of a chemical's activity spectrum, that is which plant species are susceptible and which are tolerant, is of primary concern. Second, the concentration/exposure time (CET) relationship for controlling the target plant is needed. All of the registered aquatic herbicides are efficacious against milfoil; however, the activity range of these products against other plants is variable. Some products are broad spectrum in their action and can control submersed vegetation of all kinds, while others have a more narrow spectrum and can be used to control specific target plants selectively, or to handle closely related groups of plants. Activity spectrum information is generally provided on the herbicide label, or can be obtained from various herbicide use guides. Since herbicides are so specific in their activity, it is also critical to have an accurate taxonomic identification of the target plant. Verification of plant identifications can be provided by aquatic botanists or plant taxonomists and/or personnel for managing aquatic vegetation.

Each herbicide has a distinct combination of concentrations and exposure times that will allow it to control a particular plant, and precise information on aquatic CET relationships is currently being developed by many researchers. This is important because it is the rate of herbicide application (concentration) and the length of time that a herbicide is in contact with a target plant (exposure) that determines the efficacy (and cost-effectiveness) of a treatment. Some of the registered aquatic herbicides have relatively short, dose-dependent contact time requirements for controlling milfoil (hours), while others have much longer ones (days). Satisfying CET relationships is the most important

Aquatic herbicides and you

factor in determining success or failure when treating a submersed species. Unlike emergent or floating vegetation where herbicides can be applied directly on the plant's surface, submersed treatments deliver herbicides into the aqueous medium surrounding target plants, where the compound is subject to the effects of bulk water movement. Once an herbicide's active ingredient is dissolved into the water, any movement of that water away from the target plant (caused by gravity flow, springs, tides, wind and thermal-induced currents, etc.) will impact CET relationships and efficacy.

SITE-SPECIFIC TREATMENT FACTORS

With the success of submersed treatments dependent upon dose and contact time, an adequate knowledge of a site's specific water movement regime is highly desirable. This information can be acquired from stream and tide-gauging stations, weirs, discharge gates, and water-exchange measurement techniques such as electronic flow meters, acoustic velocity meters and tracer dye dispersion studiesl. Once waterexchange characteristics in the treatment are understood, herbicide formulations, application equipment and techniques, and timing or sequence of application can take advantage of water-movement properties. For example, the surface application of liquid herbicides would be an appropriate technique in slow-moving or quiescent waters, when the water column is isothermal and plants are below the surface. Isothermal conditions will allow for a more complete mixing of herbicides throughout the water column, thereby reducing concentration "hot-spots" and the erractic efficacy that can result when water-column temperatures are stratified. In contrast, subsurface injection of liquid herbicides, or use of granular or pellet formulations, would be more appropriate to penetrate dense, "topped-out" stands of submersed plants that have created temperature-stratified environments, or in areas of greater water exchange.

The use of site-specific application strategies can maximize efficacy against target plants and minimize the occurrence of negative environmental impacts, while also aiding prediction of off-target movement of herbicide residues. Another very important site-specific consideration involves the regulation and legal use of herbicides. When it comes to legality, the herbicide label is a law. Pesticide labels are issued by the U.S. Environmental Protection Agency (EPA) after they evaluate the results of demanding laboratory, greenhouse, and field-testing procedures conducted under federally mandated Good Laboratory Practice research standards. To ensure protection of the aquatic ecosystem, pesticides receiving a federal aquatic label must undergo the

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most stringent level of evaluations that are in existence for non-crop sites. States can also impose local use restrictions greater than those listed on the federal label. Prior to using any herbicide in and around water, always consult the local authorities tasked with the regulation of aquatic pesticide use. In most instances when developing chemical strategies for managing aquatic vegetation, it is advantageous to solicit the services of an experienced and reputable aquatic pesticide applicator, certified by the state.

Use restrictions contained in the labeling information of each herbicide are designed to ensure that chemical residues occurring from the application of a product result in negligible risk to humans and the environment. These use restrictions often include such items as maximum allowable treatment rates in or near areas used for swimming, fishing and livestock watering, or in water otherwise used for irrigation and domestic purposes. These use restrictions often affect treatment strategy for a given site. However, some constraints can be mitigated by using the lowest effective application rate, by increasing required treatment set-back distances from water intake structures or discontinuing use of these structures for an appropriate time period, and by scheduling applications in conjunction with low water use and recreational activity periods.

HUMAN HEALTH AND ENVIRONMENTAL SAFETY There are two simple and basic factors to recognize when considering the safety of aquatic herbicides: 1) products that have been granted an aquatic label are safe to use in and around water; 2) pesticides that are potentially harmful to humans and other non-target animals when used in and around water donot have aquatic labels. The weight of scientific evidence plainly demonstrates that when aquatic herbicides are used according to label instructions, there are no direct effects on the health and safety of non-target mammals, birds, reptiles, amphibians, fish, invertebrates, etc. It is worth noting that as the currently labeled aquatic herbicides are being moved through the EPA-mandated pesticide re-registration, all of them will probably survive this examination process and be reissued with aquatic labels. Furthermore, most of these reissued labels will show significant reductions to their current use restrictions. And keep in mind that re-registration has required a full review of the historic data package on these products, plus the evaluation of new rate and effect data at levels that were technologically unattainable a few years ago. Clearly, these less-restrictive labels are a testament to the safety of aquatic herbicides, most of which were developed prior to 1980.

FUTURE OF AQUATIC HERBICIDES

The continued use of aquatic herbicides will be directly related to our commitment to manage our increasingly critical and valuable water resources. Federal and state natural resource agencies, environmental organizations, and interested parties in the private sector are working cooperatively to reverse the degradation and loss of irreplaceable native habitats across the U.S. caused by non-indigenous species. Many of these exotic invaders are aquatic and wetland weeds, and they are infesting new areas in every region of the country. At present, and for the foreseeable future, the prudent and responsible use of herbicides for effective and selective control of these plant pest species is an important option. Through research and development efforts, chemical methods can be fine-tuned to continue to provide an environmentally compatible way of managing aquatic ecosystems.

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MICHIGAN LAKE & STREAM ASSOCIATIONS' FALL REGIONAL SESSIONS

Mark your calendars for the following MLSA fall seminars! You may wish to attend one or more; feel free to attend as many as you'd like.

For more information about speakers, locations and times, please call the MLSA office or the Regional Vice President for the region you wish to attend. Watch the MLSA website (www.mlswa.org) for more information and registration forms, which should be posted at the end of August. These sessions are open to the public.

SEPTEMBER 8, 2007

Region 1, 5, 6

Howell Nature Center, Howell, Michigan

Region 13, 14, 15

Covenant Point, Hagerman Lake, Iron River, Michigan

SEPTEMBER 15, 2007

Region 9, 10, 11

BJ's Restaurant, Gaylord, Michigan

SEPTEMBER 29, 2007

Region 7

Sage Township Hall, Gladwin, Michigan

OCTOBER 20, 2007

Region 2

Jackson Community College, Jackson, Michigan

Region 4, 8

Kettunen Center, Tustin, Michigan

OCTOBER 24, 2007

Region 3

Van Buren Conference Center, Lawrence, Michigan

SPECIAL NOTES:

Happy 60th anniversary to Bruce and Pearl Bonnell! Both are members of MLSA, and Pearl is our organization's talented treasurer.

On August 7, our publisher, Mr. Donald Winne himself, celebrated his 90th birthday!

MLSA

Mark your calendars!!!

ANNUAL CONFERENCE

APRIL 25, 26, 27, 2008

RAMADA INN CONFERENCE CENTER

GRAYLING, MICHIGAN

TTORNEY WRITES

Odds and ends

For lakefront property owners, good lo-OUTDOOR FURNACES cal ordinances are a lot like home fire extinguishers-vou don't think about them much, but they are very important when you need them. Of course, having effective local municipal ordinances governing zoning (for example, regulating keyhole developments) to protect the lakefront should be of vital interest

WATER WITHDRAWAL

if that is not already the case.

Most Michigan riparians are well aware of spring water ground extractions by Nestlé under their Ice Mountain bottled water label. What if Nestlé or some other water bottling firm were to choose a site in your area from which to extract large quantities of water? It would become a pretty important topic of conversation regarding any proposed water extraction well located near your lake (or feeder creek, stream, or river), particularly if your aquifer or water level could be impacted.

to any lake association or riparian prop-

erty owner. Nevertheless, there are cer-

tain new "hot" topics in Michigan that

should be the subject of local ordinances

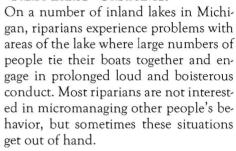
Given the toothless water withdrawal regulations enacted in Michigan just over a year ago and the weak powers of the Michigan Department of Environmental Quality in this area, regulation by a local township, village or city ordinance might be the only line of defense against unreasonable water withdrawals. Accordingly, riparians should inquire about having their local municipality adopt an amendment to the municipal zoning ordinance to regulate groundwater withdrawals.

You should be aware, however, that the legislation passed last year in Michigan might preclude some water withdrawal ordinance regulations, although the law is not clear regarding that matter.

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By Clifford H. Bloom, Esq. Grand Rapids, Michigan 49504-5320

"PARTY BARGE" ORDINANCES



On some lakes, these floating parties occur weekend after weekend in front of a given riparian's house or cottage for hours at a time. Although it appears that no municipality in Michigan has adopted an ordinance to regulate such behavior (and such an ordinance could even be difficult to draft), there is no reason that such an ordinance could not be adopted.

lust as this issue of The Michigan Riparian went to print, the Michigan House of Representatives passed the public road ends bills sponsored by the backlot property owners groups. The battle over the bills now turns to the Michigan Senate. If passed, the backlotters' bills have the potential to hurt riparians (and even members of the general public who would like to use the public road ends in the fashion that they were intended to be used for, such as swimming, fishing, etc.) more than any legislation in decades.

If these matters interest you, please contact your Michigan Senator and state your opinion. That is what many backlotters did with their Michigan House member, and it helped result in the Michigan House passing their bills. Legislators do respond to calls, letters and e-mails from their constituents!

You may have noticed the proliferation of new outdoor residential heating devices, which resemble sheds. They typically utilize wood or pellets as an alternate means for heating individual houses. You might be wondering, "What does this have to do with lakes and streams?" Well, in crowded lake areas, you could find it quite annoying if your neighbor installs an outdoor furnace close to the common property line (and potentially close to your house) which spews out significant amounts of black smoke during the winter or colder months.

People with asthma or breathing problems could be particular adversely affected. An increasing number of municipalities are adopting ordinance provisions which regulate or even ban outdoor furnaces. At this time, however, it is unclear whether or not state heating and mechanical codes (or other laws) will permit municipalities to ban outdoor furnaces altogether.

ROAD END ORDINANCES

As most riparians know, public roads which end at lakes in Michigan are becoming an increasingly significant problem due to backlot property owners or members of the public misusing them by installing docks, creating floating marinas, leaving items there all summer, etc.

While adjoining or nearby riparians can often obtain relief via expensive private civil lawsuits, local municipalities can regulate road ends by ordinance provisions. Such ordinances can include a prohibition on docks, shorestations, overnight boat mooring, and similar matters. It is much easier for a municipal official to enforce such an ordinance by a civil infraction ticket than it is for riparians to have to file expensive private lawsuits to clean up problems at public road ends.

Will Asian carp reach the Great Lakes?

More than 180 aquatic invasive species have been discovered in AT THE GATES from "Great Lakes Boating" Magazine the Great Lakes. Every 28 weeks, on average, one new non-native species enters the waters of our Sweetwater Seas. And once they've arrived, it's nearly impossible to get them to leave.

These foreign invaders, which include everything from tiny red mysid shrimp to eel-like sea lamprey, have had a ruinous impact on the lakes' native species and, as a result, those of us who recreate and live along the shoreline.

Now there's an even greater threat waiting at the gates of the Great Lakes: Asian carp. These huge, flying fish could kill sportfishing and recreational boating as we know them, and could forever ruin lake life as we know it.

However, if Congress acts quickly, there is a chance to prevent Asian carp from ever reaching the Great Lakes. The threat posed by Asian carp to our family experiences of boating and fishing on the Great Lakes is enormous. The project of preventing their entry is imperative.

THE THREAT

Asian carp are huge fish: they can weigh upwards of 60 pounds and commonly weigh-in between 30 and 40 pounds. Not only are they big, but they also happen to be tremendous leapers, flying in high arcs out of the water. And what happens to trigger their flights through the air? The sound of a boat motor. Boats are the trigger that set these live missiles shooting through the air. In Illinois, where Asian carp are already exceedingly common, the heavy, leaping fish have struck boaters with enough force to send them to the hospital.

So, these fish not only ruin the serenity of boating, they also pose a risk to the safety of boaters. Fisheries biologists believe that if the Asian carp enter the Great Lakes, they will out-compete native fish for food and habitat, disrupt the ecosystem and crash the region's \$4.5 billion fishery. In other waterways, they have shown a remarkable ability to reproduce and take over entire ecosystems at astonishing rates.

In fact, in the fall of 1999, fish kills in isolated ditches adjacent to the Upper Mississippi River on the Mark Twain National Wildlife Refuge in southern Illinois included large numbers (97%) of Asian carp, but only one individual each of four native fish species.

After that incident, reports came in of commercial fishermen having to abandon fishing sites on the Missouri River because they were catching so many Asian carps that they found it impossible to raise their nets. The fear is that in time, the other four Asian carps will become as widely distributed and abundant, wreaking widespread havoc with native fish and shellfish habitats and foods.

If they are able to escape the Illinois River, the Great Lakes could face a grim fate where boating is dangerous, anglers can only catch one kind of undesirable species and lake state economies feel the repercussions.

As of now, Asian carp account for nine out of 10 fish on the Illinois River. And though, as far as anyone knows, they haven't vet reached Lake Michigan, they are on the doorstep, heading up the Chicago Sanitary and Ship Canal. The only thing holding them back and keeping them at bay is a temporary electric barrier.

This tempoelectric rary barrier, which forms a kind of gate across the Chicago Sanitary and Ship Canal, consists of a small array of cables strung along the botwww.greatlakesboating.com May/June 2007



A bighead carp taken from the Illinois River during the annual Great Goby Roundup near Starved Rock State Park. PHOTO BY KAREN WESTPHALL, U.S. FISH & WILDLIFE SERVICE

tom of the canal. The cables emit a low-level electrical frequency that is designed to irritate and repel Asian carp. For years, Congress has scrambled to keep this temporary electric barrier working. This temporary barrier has far outlived its designed lifespan, and a permanent barrier has been designed. Construction on the permanent barrier has been initiated but is not completed.

On January 18 of this year, Representative Judy Biggert (R-IL) and Senator Richard Durbin (D-IL) introduced legislation that would upgrade the temporary barrier to permanent operation and complete construction on the second, more comprehensive barrier just behind it. The Great Lakes Asian Carp Barrier Act (HR553 and S336) will once and for all fund the last line of defense against the Asian carp and prevent them from entering the Great Lakes.

With Asian carp migrating up the Mississippi River and threatening to enter Lake Michigan through the Chicago Sanitary and

New non-native species

Ship Canal, the electric barrier on the canal could be the only way to repel the carp back and keep them from entering Lake Michigan.

"Delaying action on this important bill could be the death knell for the Great Lakes," said Joel Brammeier, associate director for policy of the Alliance for the Great Lakes. "It's time to permanently fund the barrier to protect a resource that is the center of the region's economic and cultural identity."

Just last year, the barrier looked to be doomed except for a last-minute amendment to the Emergency Supplemental Appropriations Bill. The Great Lakes Asian Carp Barrier Act, once enacted, will authorize approximately \$9 million to construct and maintain a permanent electric barrier to keep the Asian carp out of the Great Lakes.

ASIAN CARP BACKGROUND

According to the U.S. Fish and Wildlife Service, there are four species of large Asian carps (grass, bighead, silver and black) that have been imported into the U.S. for use in the aquaculture industry and that are now species of grave concern. Biologists are worried about their potential effect on native fish and shellfish when they escape, or are released, into the wild.

Grass carp: The U.S. Fish and Wildlife Service reports the grass carp, or white amur, native to eastern Asia, was first imported into the U.S. in 1963 to aquaculture facilities in Auburn, Alabama, and Stuttgart, Arkansas, for research in the control of aquatic vegetation. This species typically inhabits large rivers but can be raised in ponds and rice fields; and large individuals are known to consume many pounds of aquatic vegetation in a single day. The first release into open waters occurred as a result of escapement from the Fish Farming Experiment Station in Stuttgart. By 1978, Arkansas biologists had stocked the species in more than 100 state lakes. Since that time, grass carp have rapidly spread to 45 states through the accidental and intentional, legal and illegal release by numerous state and federal agencies, private groups and individuals. Despite efforts to control the spread of grass carp by stocking individuals thought to be sterile, this large (50-plus pounds), stout-bodied, bluntheaded, pale gray fish has established itself and is reproducing in the wild.

Bighead carp: According to the U.S. Fish and Wildlife Service, bighead carp - native to the large rivers of eastern China such as the Yangtze - were first brought to the U.S. in 1972 by a private fish farmer in Arkansas who wanted to use them to improve water quality and increase fish production in culture ponds. Bighead carp first began to appear in open public waters (i.e., the Ohio and Mississippi rivers) in the early 1980s, likely as the result of escapement from fish farms and aquaculture facilities. The species has now been recorded in at least 18 states, and is reported to be "piling up" in large numbers below dams on many Midwestern rivers. Bighead carp are filling the nets of commercial fishermen to the point that nets can't be lifted and fishing sites have to be abandoned. The bighead carp is a very large, deep-bodied, somewhat narrow fish with a very large head. The bighead carp utilizes open water areas, moving about near the surface of large, lowland rivers, consuming large quantities of blue-green algae, zooplankton and aquatic insect larvae and adults. Because of its feeding habits, the bighead carp directly compete with the native paddlefish, bigmouth buffalo and gizzard shad, as well as with all larval and juvenile fishes and native mussels.

Silver carp: The U.S. Fish and Wildlife Service states the silver carp, native to eastern Asia and the Amur and other lowland rivers of China, was also first brought to the U.S. by an Arkansas fish farmer in 1973, apparently for use in phytoplankton control in ponds and as a food fish. By the mid-1970s, it was being raised at six state, federal and private facilities in Arkansas; and by the late 1970s, it had been stocked in four municipal sewage lagoons. This deep-bodied, narrow, very large minnow is similar to the bighead carp, but much more efficient at straining suspended material from the water. By 1981, the silver carp appeared in Arkansas' natural waters at seven different sites, likely as the result of escapement from aquaculture facilities. The silver carp and bighead carp have similar histories and uses. Silver carp also directly compete with all native fish larvae and juveniles; with adult paddlefish, bigmouth buffalo and gizzard shad and with native mussels. The silver carp is presently spreading rapidly throughout the large rivers of the Mississippi River Basin, like the Illinois River, with huge numbers and significant natural reproduction being documented by biologists in off-channel and backwater habitats.

Black carp: The black carp is native to most Pacific drainages of eastern Asia, according to the U.S. Fish and Wildlife Service. It was first brought to the U.S. in the early 1970s as a "contaminant" in imported grass carp stocks delivered to a fish farm in Arkansas. They resemble the grass carp in appearance except they have fused and hardened gill rakers (appearing like human molars) used to crush the shells of mollusks and crustaceans, the black carp's primary food. Most states feel that black carp pose a serious threat to native mollusk and snail species, many of which are federally listed as threatened or endangered.

KEEPING THEM OUT

The Army Corps of Engineers in recent years has had to juggle its domestic obligations with the ever-increasing cost of supporting the U.S.military campaigns in Afghanistan and Iraq. The temporary barrier on the Chicago Sanitary and Ship Canal has had to compete for funding with the war expenses, compelling the Army Corps in the past to submit annual budgets completely eliminating funding for the barrier's operation. On more than one occasion Congress needed to preserve the operation of the temporary barrier with emergency spending provisions. The Great Lakes Asian Carp Barrier Act will resolve the need for the Asian carp barrier to compete with the military missions overseas. The legislation will also reimburse states through Army Corps projects for their individual contributions to the construction and maintenance of the temporary barrier. Illinois, the location of the barriers, has provided roughly a 50% contribution to date, along with the Army Corps for the barrier's construction and operation. Other neighboring states have also contributed some to the effort to date. Visit www.greatlakesboatingfederation.org. There, you can view updated lists of co-sponsors from the U.S. House of Representatives and the Senate and find links to the text of the two bills. You will also find an action alert about contacting your representatives and senators to thank them for co-sponsoring, or urge co-sponsorship of this critical legislation.

Viral Hemorrhagic Septicemia (VHS) invades

If you have followed the issues that have faced Wisconsin lakes over the years, you have certainly seen an ever-increasing list of "new" aquatic species that had never been seen in our waters before. Plants, fish, zooplankton, mussels ... the list goes on. Some have been aggressive and are causing major concerns and management costs, while others have been less of an issue. All have come into our waters because of some human activity which had unintended consequences. The latest addition is a virus that kills fish called Viral Hemorrhagic Septicemia (VHS).

Viral Hemorrhagic Septicemia (VHS) virus is a disease that can affect both fresh and saltwater fish. The VHS virus was first reported in the 1930s when it was isolated in farm-raised trout in Denmark. In 2005, it was discovered in Lake Huron, Lake St. Clair, Lake Erie, Lake Ontario, and the St. Lawrence River, but it is believed to have been in the Great Lakes since 2003. It is not known to cause harm in humans, but it is considered so serious to fish that it is listed as a reportable disease by the World Organization for Animal Health.

WHAT FISH MAY GET VHS?

This virus received national attention when a number of fish die-offs occurred in

the Great Lakes. This is the first time any virus has affected so many different fish species from so many fish families in the Great Lakes. Researchers believe these fish kills in the Great Lakes region represent a new strain of the virus. As many as 25 species of fish may be susceptible to the virus, including muskellunge, smallmouth bass, Northern pike, yellow perch, black crappie, bluegill, bass, walleye and others.

WHAT DOES IT DO TO FISH?

VHS can be spread in fish fluids such as urine and reproductive fluids. The VHS virus can remain viable up to 14 days in water, so it could easily be spread in bait buckets or live wells. The virus reproduces best in fish when water temperatures are cool (37-54 degrees F). Some fish show no external signs of the virus while others show signs that include bulging eyes, bloated abdomens, and red spots caused by hemorrhaging in the eyes, skin, gills and at the base of the fins. If there are no physical signs, it is hard to tell if fish are infected or not. Moving these seemingly unaffected fish from one waterbody to another may spread the virus. Testing in a lab is necessary to determine whether a fish is actually infected.

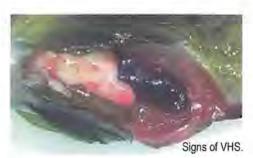
> The virus infects the gills and within two days a fish can be contagious. The disease seems to transmit easily between fish of all ages. It has been discovered that some fish do not die from the virus, and may actually develop antibodies. The trouble is, the level of antibodies in the fish may decline over time and the fish may start spreading the virus again, which could cause a cycle of fish kills.

WHAT IS THE WISCONSIN DNR DOING?

The Wisconsin Department of Natural Resources (DNR) is taking VHS very seri-

from Spring 2007 "Lake Tides"

newsletter for people interested in Wisconsin lakes Wisconsin Lakes Partnership



ously and has initiated a major effort to test for the virus and control its spread. A few of their efforts including testing wild and hatchery populations of fish. The DNR has also informed the Wisconsin Veterinary Diagnostic Lab about the VHS virus in the Great Lakes and, with their help, has been monitoring spawning salmon and spotted musky for the virus since the fall of 2005.

In 2007, the DNR initiated an expanded VHS virus testing plan, including fish from the Great Lakes and Mississippi River drainages, bait fish, and invertebrate bait species. In April 2007, emergency rules went into effect to help control the spread of the VHS virus.

These are changing times, and we are recognizing that humans are the reason so many unwanted species are showing up in our waters. We all need to look at making a cultural shift in how we behave when it comes to boating and using our waters. To make sure our waters remain resilient, we must not move any boat or equipment from one waterbody to another without practicing good bio-security.

That means each of us must thoroughly clean, drain and decontaminate all boats and equipment each and every time we move from one waterbody to another. Until we all do this religiously, there is a great likelihood that we will continue to spread aquatic invasive species from one lake to another. For more information on VHS and rules details, visit http://dnr. wi.gov/fish/pages/vhs.html.

Editor's note: As the Spring 2007 issue of the "Lake Tides" newsletter went to press, VHS had been found in a Wisconsin inland lake: Little Lake Butte des Morts.

What can you do?

- DO NOT transport live fish or bait from one location to another.
- DRAIN all water from your boat, bait buckets, coolers and motors before you leave a landing.
- DISINFECT your boat (inside and out) and equipment with 1/3-cup bleach to 5 gallons of water. Disinfect away from any waterbody.
- DO NOT empty bait buckets or live wells into lakes or rivers.
- DO NOT use minnows in any Michigan waters unless they were purchased in Michigan, or you legally caught the minnows from the place you are fishing.
- DO NOT use "cut" or dead bait from other Michigan waters
- · REPORT fish kills to your DNR fish biologist.

Cheboygan County trial court fails to follow appeals court decision in Mullett Lake case

Betty Hirschman, a retired Michigan schoolteacher, became the sole owner of two shoreline lots on Mullett Lake in Cheboygan County. One lot was inherited from family and the other lot was purchased by Betty and her husband, John. They enjoyed their shoreline property together and invited neighbors and friends to share their beachfront with them. This enjoyment continued until John's death in 1985. There were few problems for Betty during the next 10 years, but things changed in the mid-1990s. There was an increase in the number of dogs on the beach, and people allowed them to run loose. "Dog feces in the sand area where her grandchildren played became an increasing problem and required her to clean up the beach frequently. Beer cans and broken glass were also a problem. The use of the beach changed so that people had bonfires at all hours of the night, with smoke trailing into her

cottage; wave runners and other watercraft would be moored on the beach at will; the beach became littered with dirty diapers and beer bottles; and there was fornication on the beach" according to court documents. Betty sought relief from this state of affairs, and in 1997, along with several lot owners, filed an action against the Cheboygan County Road Commission seeking closure of the alleys on either side of her two lots. Other lot owners along the Cheboygan River brought action against her to keep the alleys open, for both foot and vehicle traffic. The trial court found in favor of the plaintiffs to keep the alleys open to public use.

The trial court also held that the beach in front of Betty's cottage could be used by the lot owners within the subdivision (a total of 136 lots) for swimming, sunbathing and picnicking. Betty filed

a claim of appeal to the Court of Appeals, which made an unwise decision that was subsequently overturned by the State Supreme Court, and remanded back to the Appeals Court. The Appeals Court them remanded the case to the trial court to bring its opinion and order in line with the Supreme Court decision.

The trial court supported in part and denied in part the remand order. They closed all of the alleys to vehicular traffic, but continued their position that swimming, sunbathing and picnicking could continue on the beach in front of Betty's cottage, although it would not be permitted on the beach in front of other lots in the area. To correct this improper decision by the trial court, Betty has filed a request to the Appeals Court to reverse the trial court's decision to treat the beach in front of her lots differently from the other dedicated areas.



LOVE MY LAKE ..

"Love My Lake" is a new feature of The Michigan Riparian. In each issue, we invite subscribers and readers to tell us why they love their lake and to share one or two photographs. If you'd like to feature your lake in a future issue, please follow the format you see below to answer the seven sets of questions and submit them via e-mail to editor@churchill3c.com or via "snail mail" to: Love My Lake c/o Jennifer Churchill, P.O. Box 44, Carson City, MI 48811. Please also e-mail a large-format (300 dpi) jpg or tiff photo of your lake, or snail mail a regular photo. Photos will not be returned, so please mail us a copy. We look forward to hearing about your lake!

John and Pat Hooks love living on Lake Chemung

What is your name and MLSA affiliation (association you belong to)?
Answer: John and Pat Hooks.
We belong to the Lake Chemung Riparian Association.

What is the name of your lake and where is it located (county and general region of Michigan)?

Answer: Lake Chemung in Livingston County, between Brighton and Howell.

How long have you lived on lakes? How long have you lived on this particular lake?

Answer: We had never lived on a lake until we bought our home here about 11 years ago. We were married here in our sunroom and now cannot imagine NOT living on a lake.

How would you describe your lake? Very rural? Developed? A village or town feeling, or more remote?

Answer: When we moved to Lake Chemung, Sunrise Park (our neighborhood on the lake) felt like a tiny village and the surrounding area had a rural appeal. Sunrise Park has remained essentially the same, but most of the land along Grand River Ave. has now been developed.

What do you love most about living on a lake? What do you love most about this particular lake that you now live on?

Answer: What we love most is the fluid, constantly changing view, including the wildlife that is attracted to the water - swans, ducks, heron, rabbits, fish, turtles. We love Lake Chemung's size (321 acres) and location: it's an all-sports lake that's not too big. With all of the new development in the area, we have the best of both worlds. We can sit on the deck or float on the pontoon. Or we can hop in the car and enjoy quick and easy access to hospitals, library, shopping, and great restaurants. And it's only a 25-minute drive to Ann Arbor and U of M.

What types of activities do you and family members do on your lake?
Answer: Most of our time is spent floating

o n
t h e
pontoon. We love to go
out in the evening and
watch beautiful sunsets.
When the grandchildren

are here they like swimming and tubing.

Do you find that family members visit more frequently when you live on a lake than when you don't? Do you have any funny anecdotes to share? Yes, the lake seems to be an attraction for family gatherings.

РНОТОЅ ВУ РАТ НООКЅ

Top photo, Howell hot-air balloons over Lake Chemung. Bottom photo, a double rainbow over Lake Chemung.

> We frequently entertain outside during the summer. Two of our granddaughters (now 2-1/2 and 4 years old) have spent the last few summers arriving via their mom's

> > car, running to the lake, stripping off clothes and diapers along the way, and spending many glorious hours "skinnydipping" in the shallow, sand-bottomed area in

front of our house. They have quite a reputation around Sunrise Park! :)

News From Lakes Around the State

MLSA conference lesson

BIG BROWER LAKE IMPROVEMENT ASSOC.
ROCKFORD

Gale Satterlee, President

Joseph Hesse, PhD, lake resident and big Brower Lake Water Quality Monitor, attended Michigan Lake & Stream Associations' annual conference in April. He reported to the BBLIA board at the May meeting that scientific studies of Michigan lakes confirm that phosphorous creates problems for Michigan lakes. According to Hesse, "The bottom line is because water is hard in Michigan lakes, phosphorous concentrates on the bottom. When conditions are right, those phosphorous concentrations trigger great growth spurs of weeds and algae." Regarding Brower Lake, "The good news is that Big Brower Lake is very fortunate to have a sanitary sewer system around the lake. Therefore, there is no phosphorus run-off into the lake from septic fields. The bad news is that storm sewer drains around the lake empty directly into the lake. These storm drains carry all sorts of things into the lake, including phosphorous from lawn fertilizer and leaf ash." Because of its detrimental nature to the lake, Hesse urges all residents to redouble their efforts to keep phosphorous out of Big Brower Lake by controlling surface runoff. "Two large sources of phosphorous are commercial lawn fertilizers and leaf ash," he said. "What goes onto the surface land around Big Brower Lake flows off and ends up in the lake. If there is phosphorous in the form of fertilizer or leaf ash on your property, one way or the other, it eventually flows into the lake and fertilizes weed growth."

Fertilizer-free zones

BYRAM LAKE ASSOCIATION Linden

Jack Schoeppach, President

April is Fertilize Sparingly and Caringly Month ... Storm drains in our streets and our yards empty into our lakes and streams. While fertilizer is good for our lawns, unfortunately it's bad for our water. Fertilizer in our lakes and streams causes algae to grow. This can form large algae blooms and uses up oxygen that fish need to survive. With a majority of the 1.5 million homes in southeast Michigan

fertilizing their lawn, all of us need to be aware of the effects of our lawn care practice. There are some simple steps you can take to help keep our water clean: Select an organic or slow-release fertilizer. Select a fertilizer with low or no phosphorous. Make your lawn chaper and easier to maintain by mowing high: three inches is the rule! Tall grass promotes root growth and shades out weeds. Clippings recycle nitrogen back into the soil, so fertilizer can be reduced by 25% or more! Sweep fertilizer back onto the lawn as fertilizer left on sidewalks and driveways will easilv wash into storm drains. Also, don't guess; a soil test will tell you what, if any, fertilizer is needed in your yard. Make "Fertilizer-Free Zones": Keep fertilizer applications at least 20 feet away from the edge of lakes, streams, or storm drains. Remember, you're not just fertilizing

FEMA flood maps inaccurate

COREY LAKE ASSOCIATION

Three Rivers

Cindy Gillard, President

The FEMA Flood Insurance Rate Map (FIRM) panel for Fabius Township that many appraisers and mortgage lenders use to determine whether a property must have federal flood insurance has been found to have many inaccuracies along the shorelines of the township's lakes. The FEMA map indicates many areas as being in the 100-year-old flood plain (Zone A) when they actually are not. In order to avoid having to pay expensive flood insurance that is not really necessary, property owners have had to have local surveying firms process Letters of Map Amendment with FEMA to prove to lending institutions that flood insurance is not needed. In the last 15 years, more than 80 of these letters of amendment have been processed in Fabius Township. Because of these inaccuracies, Fabius Township contracted with the U.S. Army Corps of Engineers to produce detailed, large-scale contour maps of the 100-year flood elevations around the six major lakes, as well as along the Rocky and St. Joseph rivers. A total of 66 map sheets, each measuring 24" x 36", have been produced at a scale of 1" equals 100 feet. The outline of all nearby structures

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as they existed in 2003 are also shown on the maps. These maps are being used to persuade FEMA to correct the inaccuracies in the Flood Insurance Rate Map. Since these maps are many times more detailed than even a corrected FEMA map will be, FEMA is also being asked to recognize their validity as supplements to the FEMA map. Several homeowners have been successful in using these large-scale maps to avoid the cost of unnecessary flood insurance.

Succeeding in court CRYSTAL LAKE & WATERSHED ASSOCIATION

Bob Appleford, President

Beulah

We have followed through with our commitment to proactively oppose any activity that will have a negative impact upon Crystal Lake. First and foremost, we went to trial against MDNR and MDEO to prevent construction of a proposed boat launch, which was designed too large and failed to protect existing wetlands adjoining the lake and the lake itself. The trial will be completed in January. Second, we commenced suit against MDOT to require correct procedures to be used during the M-22 project last year. We negotiated a successful settlement and MDOT has already taken remedial action with more to follow. The most important thank you is to all of those members who stepped up in our time of need and contributed funds to fight the legal battles that we believe are critical to the future of our watershed. The expense of the extended boat launch litigation nearly doubled the estimate of \$50,000.

Five options for milfoil

DERBY LAKE ASSOCIATION

Stanton

Ed Housler, President

Last year we hired a limnologist from ASI Environmental to come in and look over our lake, give us their assessment of the milfoil situation and give us some recommendations on moving forward. Last fall's assessment of the milfoil in the lake was disturbing to many of us. The board has met in five of the past eight months to discuss our options for treating the lake. We've consulted with MDEQ, MLSA,

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News From Lakes Around the State

continued from page 19

ASI, the Montcalm County Health Department and the county drain commission, as well as other lake associations to help us determine our strategy in 2007. We feel that we have five options to consider, listed from the least expensive to the most expensive (Ed. Note: for more details on these options, contact the Derby Lake Association directly): 1) Do nothing. 2) Follow the same weed control program as in previous years. 3) Hire a professional applicator with limnology experience. 4) Execute Public Improvements Act 188 of 1954, which provides for certain improvements by townships to assess the cost of improvements against property benefited by special assessment. 5) Execute Natural Resources and Environmental Protection Act 451 of 1994, which allows for the establishment of a lake board, which is a five-year commitment and an approach that several lake associations are currently enacting.

Lake testing

EAGLE LAKE BLOOMINGDALE ASSOCIATION Caledonia

Bob Wicklander, President

Phosphorous tests were done in late September by Professional Lake Management and Cary Hamann. Both tests were a little high. A test done in September does not indicate the true condition of the lake as well as the April test. Cary Hamann will cover this at the annual meeting in May. If anyone would like to view the web site for Michigan lakes testing results, the URL is www.micorps. net/data/view/search. When the page is displayed, click the "lakes" button. On the resulting screen, select "lake name," then scroll down the list of lake names; choose your lake and click "search." Make sure you scroll all the way to the end of the page to see the complete list of test results.

Fishing tourney regulations

KLINGER LAKE ASSOCIATION White Pigeon

Dan Evert, President

The Michigan Department of Natural Resources, Parks and Recreation Division has completed reviewing and updating the Fishing Tournament Regulations

during 2006. I (Dan Evert) was asked to participate in representing the riparian viewpoint. I attended a workshop in October 2006, at which it was realized that the current permit fees were not covering the DNR's cost of administering the program. It was also realized that a few lakes in Michigan hosted the majority of tournaments while other lakes hosted few to none. For instance, the most popular region for tournaments in Michigan is the southwest region, which has 25 lakes - 10 of which have more than 25 tournaments. Klinger Lake, being in this southwest region, hosted 31 tournaments last year and had to be restricted or the number would have been higher. Out of the October workshop came new regulations that will be instituted this year. Two public hearings were held in December for comment on the regulations before they were put in place. I attended one of those meetings; here's a brief overview: Beginning in 2007, fees for tournaments have been eliminated except for 40 lakes which have heavy tournament usage (of which Klinger is one). A fee of \$25 will be charged to schedule a tournment and there will be a limit of 30 tournaments per year. No tournaments are to be held during holiday periods: Memorial Day, Fourth of July, Labor Day and the busy dates adjoining them. The number of tournament vehicles can not exceed 80% of the parking capacity of the public launch site. I would like to thank Jason Fleming and Roland Johnson of the DNR for being sympathic to the needs of riparians in this matter. Through the process of reviewing how fishing tournaments are being administered, I believe all participants recognized that the lakes are home to many diverse activities. We must all be good neighbors and manage the lakes so that everyone may enjoy them.

Walleye update

PAINTER, JUNO & CHRISTIANA LAKES ASSOC.

Jerry Marchetti, Newsletter

We have completed the third and final year of our walleye stocking project. Thanks to your support, we were able to stock or lakes with 5,500 walleyes, at a cost of \$9,000. These walleyes were all 5-9 inches in length when they were delivered, and last summer we had several re-

ports of 13-18-inch walleyes being caught. Based on this rapid growth, we possibly could see some 20-inch walleyes this year. We are continuing to ask all fishermen to release any walleyes that are caught. Our hope is that, at this size, they will begin to breed. Any walleyes caught that are less than 9 inches could be a positive sign that they are breeding. We are in continuous contact with the DNR to begin including our lakes in their stocking program.

"Common sense" approach Long Lake Property Owners Association Watersmeet

Arny Domanus, Secretary/Treasurer

We realize the important investment and unique area that we are fortunate to have on Long Lake. We want to preserve and enhance the integrity of our waters and surrounding area by respecting the rights of our neighbors with a "common sense" approach. For that we reason, we have voluntarily agreed to adhere to the following guidelines (Ed. Note: In abbreviated form here due to space restrictions):

- 1) Due to the size of our lake at 168 acres, narrow width and the Sylvania area, we strongly discourage the use of Personal Watercraft (PWC), Jet Skis or Wave Runners.
 2) We promote and many practice "catch and release" fishing for our game fish population.
- 3) We respect and practice the quiet and solitude that most property owners expected when we purchased or built our homes on Long Lake. Residents should observe rules of quiet in the early morning, evening and night by restricting noise from chain saws, lawn mowers, etc.
- 4) We follow all boating, canoeing and swimming MDNR safety and boating laws. Water-skiing hours are from noon to 5 p.m.
- 5) The operation of snowmobiles, ATVs and other motorized vehicles are done in a safe and proper manner. We respect other neighbors' property rights/expectations.
- 6) We try to avoid unnecessary night lighting, which subtracts from the "northern" feeling of the lake and the feeling of being near the wilderness.
- 7) We encourage a natural "green" belt 20 to 30 feet from the shoreline by refraining from mowing or cutting trees to retain water quality and purity.

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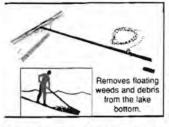
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ON THE COVER: Gun Lake, Michigan

Gun Lake has an area of 2,680 acres with a watershed area of 4,880 acres and a lake perimeter of 20.98 miles. Its maximum depth is 70 feet, with an average depth of 13.1 feet.

The Gun Lake Protective Association (GLPA) provides a variety of services to its members: It monitors DEQ permit requests from homeowners and businesses for seawalls, docks, boardwalks, etc. It provides input to the DEQ on all requests they feel threaten the health and well-being of Gun Lake. We pay for legal representation at public hearings on these matters when appropriate. GLPA also informs residents of rules against funneling, mooring other people's boats in front of homes not registered to the homeowner and provides a web site for information dissemination (www.glpa.us).

The organization also works closely with state legislators to provide input on environmental and water-quality issues, and provides two newsletters per year to keep its property owners up to date on issues relevant to the lake community. The GLPA also procures advertisers and organizes, updates, publishes and delivers more than 1,300 directories to GLPA members and provides a paid administrative officer who maintains its financial records, pays bills, maintains the database and assists with a variety of projects.



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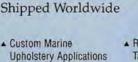


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