

## Community Focus: Pewaukee's Popular "Pool"

by Charlie Shong

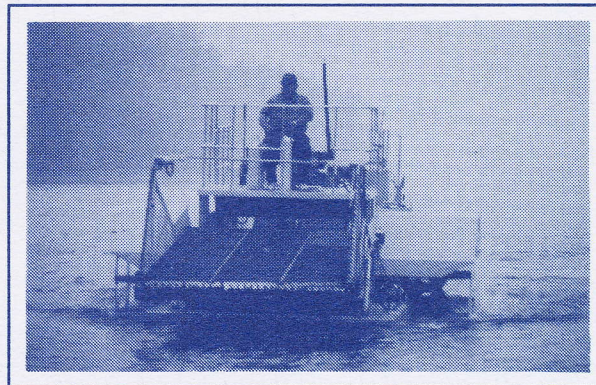
In 1836, Asa Clark recognized that development was heading west from the shores of Lake Michigan and that there would soon be a need for more sawmills. After negotiating with the territorial government, he secured the right to place a dam in the Little Fox River west of Snail Lake. The dam flooded a large marsh to an average depth of six feet and doubled the size of Snail Lake. A product of development, the newly-formed lake was named for the village that grew around the mill, Pewaukee.

By 1890, Pewaukee Lake in Waukesha County had become a major supplier of ice to both the Milwaukee and Chicago markets. Rail and highway links that were established to serve these markets also brought in a new phenomenon: recreation seekers. Only 20 miles from downtown Milwaukee, Pewaukee Lake soon became a haven for people seeking a rest from city life.

The period up to the 1930s brought many changes to the area. With the development of the automobile, and the crowds it brought, Pewaukee Lake was soon developed with summer cottages and homes. People came in increasing numbers to fish, swim, or ride tour boats to various resorts and amusement parks. By 1940, virtually all available shoreline was developed with lots as small as 35 feet of shoreline. The quality of this lake began to deteriorate.

In 1944, lake residents acted to prevent further decline in water quality and formed a Sanitary District. First they hired a sanitary inspector to survey septic systems around the lake and recommend improvements. Second, they contracted to have ash and garbage collection for all lake residents. Third, they contracted to have lake weeds sprayed, cut and removed. After the war, the transition to year-round residents increased the demand for these services.

The district installed sanitary sewers around the lake in 1976 to meet the demands of the increased residential development in the watershed. The sewer system operated by the district currently serves over 1700 customers. The district still contracts for garbage collection and has recently added weekly recycling pick-up. With year-round staff available, and increased demands on the water resource, the district began to take a stronger role in lake management issues.



In 1986 the district stopped all chemical treatment of lake weeds and increased the number of harvesting and shore cleanup units. The



district operates two harvesters, 4 transports, and 2 shore units with up to 16 summer employees. The increase in recreational boating on the lake (7th most popular of all state waters) has called for more harvesting and increased shore cleanup to remove floating weeds cut by motorboats.

Increasing residential development led to more involvement in a variety of watershed issues. These include construction site erosion control measures, stormwater management projects, and the purchase of critical wetlands to protect them from development or degradation from adjacent projects. All of these issues are critical to maintaining water quality in Pewaukee Lake.

At Pewaukee Lake, the residents of the district are working hard to meet the challenges of increased recreational use and increased watershed development to provide a quality resource for all to enjoy.

*Charlie Shong is superintendent of the Sanitary District. He was a 1992 nominee for the Lake Stewardship Award.*

### 1-800 for WI-Lakes-BBS

The electronic bulletin board system in the Wisconsin Department of Natural Resources Lake Management Program is testing an 800 number. Try it out with your computer and modem! You can call 1-800-562-5552 or the regular BBS number (608/267-7551) to send and receive public messages or files about your lake.

## Why Visit Wisconsin?

What are the features drawing visitors to our state? The beauty and serenity which currently undergird tourism may be short-changed by too much glitter.

Two recent surveys illustrate the point.

First, **Midwest Living** magazine's readers called Wisconsin the "best state to vacation in," labeling it the "prettiest state" in the Midwest. Readers also liked our good roads and rest stops.

In addition, a 1990 Oneida County visitor study from a University Extension questionnaire by Rick Orton found "relaxation" to be the major reason for northern visits.

When asked about activities of members of their tourist parties, 68% of the Oneida County visitors said they had been sight-seeing, 46% wildlife viewing, 24% taking pictures, and 16% birdwatching.

## CALENDAR

October 17, 1992 Southeast Wisconsin Lakes Conference, University Center, West Bend. Focus on multiple use. Contact: Harry Hein, 414/644-5746.

November 3-6, 1992 North American Lake Management Society Annual Meeting, Cincinnati, Ohio. Contact NALMS, 904/462-2554.

April 16-17, 1993 Wisconsin Lakes Convention, Stevens Point. Contact: Diane Lueck, 715/346-3783.



# ON THE WATERS



## The Case of the Rebuilt Wet Boathouse

*As Wisconsin entered the Twentieth Century, there was little concern for the number or kind of structures we built on lakes. As we exit the century, we need to adjust our perspectives to keep the qualities that draw us to the lakes. This is an account of a showdown between past practice and future vision.*

A "wet" boathouse is essentially a garage for boat storage out over the water of lakes or rivers. These structures, by their very nature, suffer from ice and water damage and are often found in disrepair. They also tend to be used for purposes other than storing boats. A significant trend was to expand the size and add living quarters. This combination of factors affected lakes both aesthetically and physically.

Wet boathouses were having a cumulative impact on the lakes of the state. Growing concern for these consequences led to their prohibition after December 16, 1979 (§ 30.121, Wis. Stats.). Those structures erected prior to enactment of the law were allowed to remain, but their reconstruction or repair was restricted. (The total amount of money spent on repair can never exceed 50% of the equalized assessed value of the structure over the life of that structure.\*)

In 1984, a storm destroyed a wet boathouse on Lake Tomahawk in Oneida County. The owners requested a permit to rebuild the structure but the county zoning administrator denied the request, citing the "50% Rule Limitation" in the county ordinance. The owners appealed to the county board of adjustment, but to no avail. The board also denied permission to rebuild.

The owners of the boathouse didn't exercise their right to appeal that decision to the circuit court. What they did was reconstructed the boathouse without the required permit!

In 1987, when officials from Oneida County found out that the boat house was reconstructed without a permit, they began an action in circuit court to require removal of the illegally-rebuilt boathouse. In their defense, the owners included an assertion that only the state has authority to regulate such structures on the beds of waterways.

On May 16, 1992, Judge James Jansen found no merit to the defendant's arguments and ordered judgement for the county including forfeitures of over \$11,000 and attorney's fees, a prohibition on use of the boathouse, and an order for its removal. The judgement also allowed the county to remove the boathouse and assess costs against the property if defendants failed to comply with the other provisions of the order. The defendants have appealed.

What was learned?

1. Counties may adopt and administer shoreland zoning and other regulations that apply to areas waterward of the ordinary highwater mark.
2. "Grandfathered" structures that were legal when built but do not now comply with current regulations may be prohibited from major reconstruction in order to advance the public objectives of local zoning ordinances.

For more detailed information on this case contact the Oneida County corporation counsel at the courthouse in Rhinelander about the Converse Case (No. 87 CV 314).

*\*Easy to understand, huh? A general fact sheet on the 50% Rule is being developed and will be available in late fall of this year. Counties, cities and villages have considerable flexibility in how their zoning ordinances are written. Contact your zoning administrator for details about nonconforming (grandfathered) structures in your local zoning ordinances.*



# The Wisconsin Fund Grant Program for Septic Systems

Established in 1978, the Private Sewage System Replacement or Rehabilitation Grant Program provides financial incentives to protect and improve public health, safety, and groundwater quality in Wisconsin. Since its inception, this Wisconsin Fund program has awarded over \$33 million in grants for nearly 18,000 private sewage systems statewide.

As part of this program, Wisconsin counties and Indian tribes may apply to the Department of Industry, Labor and Human Relations (DILHR) for grants to assist homeowners and small commercial establishments in the rehabilitation or replacement of failing private sewage systems.

**When is a private sewage system considered failing?** (Categories listed in priority order.)

**CATEGORY 1** - Systems fail by discharging sewage to surface water, groundwater, drain tiles, bedrock, or seasonally saturated soils. These are the most serious types of failing systems.

**CATEGORY 2** - Systems fail by discharging sewage to the surface of the ground. This type of failing system is eligible for a grant, but has a lower priority for funding than Category 1.

**CATEGORY 3** - Systems fail by backup of sewage into the structures served. This type of failure is not eligible for grant assistance.

Your private sewage system may not show any signs of failure and still be failing. An

inspection by your County Sanitarian or Health Inspector is required before you can apply for a grant.

## Who can apply for a grant?

You may be eligible for a grant under the Wisconsin Fund provided that all of the following additional requirements are met:

- Your county is a Wisconsin Fund participant. (The program is voluntary and not all counties are taking part at this time.)
- Your system has been inspected and you have received a written enforcement order or determination of failure to correct the failure.
- Your family or business income is within program limits.
- Your home or business was constructed and occupied prior to July 1, 1978, and is not located in an area served by a municipal sewer.
- You comply with all other program requirements.

For a home to qualify as your principal residence, you must occupy it at least 51 percent of the year. Seasonal homes or rental housing units do not qualify. To qualify as a small business, the total wastewater flow may not exceed 5,000 gallons per day.

**What costs are covered by the grant?** A grant can be provided for the following activities:

- Site evaluation and soil testing.
- Installation of replacement or additional septic tanks.
- Installation of a pump chamber or lift pump.
- Installation of conventional, in-ground pressure, at-grade, or mound soil absorption area.
- Installation of a holding tank.

Except for soil testing, any work done before the enforcement order or determination of failure is issued is not grant eligible.

## How much money can I receive?

The maximum grant is limited to the amounts listed in the tables published by DILHR (contact your county zoning office) or \$7,000, whichever is less. Amounts vary depending on the extent of the work needed to bring your system into compliance with the state plumbing code.

*Wisconsin Fund grant money is available now. However, funding is not guaranteed. If there is not enough funding available for a full grant, you may receive a reduced grant or your grant application could be denied.*





The summer has been unexceptional as far as lake-related programs are concerned. A couple of federal items of note:

- The House Appropriations Committee has asked for \$5 million for the Clean Lakes Program-the Senate has put in zero. The final decision on this item will be made in the House Conference Committee.
- Both the House and the Senate have set aside \$1 million of funding for a special citizen education plan in EPA Region V. This funding would be available for conferences, workshops, information and education programs.

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## Let the "Sun Shine" on Your Meeting: Open Meetings Law

Citizen participation in government is not a new idea in Wisconsin. We have a strong history of citizen involvement through citizen boards and public meetings. Open Meetings Law, also referred to as "government in the sunshine," seeks to ensure that this tradition of citizen involvement in government continues.

We all attend meetings. Our schedules quickly become full of appointments, lunch dates, and conferences. Telephone meetings have become "the next best thing to being there." But just what is a meeting under Wisconsin's Open Meetings Law? For the purposes of Wisconsin law, a meeting includes "convening of the members of the governmental body for purposes of exercising responsibilities, authority or power or duties delegated to or vested in it." *As special purpose units of government, open meetings law applies to lake districts.* This includes the lake district board and its formal committees. *Lake associations, as voluntary organizations, are not bound by the sunshine laws.*

Regular meetings of the lake district board must be noticed in advance and open to the public under § 19.81 to 19.87, Wisconsin Statutes. Board members should not discuss board matters except at regularly noticed meetings. If one-half or more of the members of the board are present, the meeting is presumed to be for the purpose of exercising official board responsibilities and authorities. For the purpose of Wisconsin law, telephone conference calls are included under the definition of the term "meeting." Informal discussions are not considered to be meetings; however, those discussions that lead to conclusions do fall under the open meetings law. Social gatherings and conferences are not considered meetings requiring advance notice as long as they are not held to avoid the law.

**Notices** Wisconsin open meeting law (§ 19.84, Wis. Stats.) requires the following notices:

- A written or oral communication by the chairman or his or her designee: to the public, to the official municipal newspaper, to any news media that have filed a prior written request for such notice; and,
- Other notice as required by any other statutes.

The open meeting law requires notice of all meetings of a governmental body, including lake districts, to be posted in three places and given to the news media. The official notice of a board meeting must be posted at least 24 hours in advance except in an emergency. Notice of a lake district's annual meeting and budget hearing must also be mailed to all non-resident property owners at least ten days prior to the scheduled meeting. Newspaper notice is also required for the annual meeting and budget hearing.

To comply with the law, the notice of the meeting must "set forth the time, date, place and subject matter of the hearing, including the subject matter of any contemplated closed session, in such form as is reasonably likely to apprise members of the public and the news media thereof." [See § 19.84(2), Wis. Stats.]

The open meeting law recognizes the importance of providing citizens with an opportunity to stay informed and become involved with government. Keep the open meeting law in mind when scheduling the next meeting of your district's commission. And let the sun shine!



## "Adopt" Wisconsin's Inland Lakes!

Would you be interested in "adopting" a lake? Youth groups in Wisconsin may soon be able to do just that. Research aimed at developing an Adopt-A-Lake Program for youth is currently being conducted at the University of Wisconsin-Stevens Point.

Nationwide, few programs for youth focus on the protection of local lakes. The statewide establishment of the Adopt-A-Lake Program would underscore Wisconsin's role as a leader in the protection of inland lakes.

The purpose of this study is to develop recommendations for the establishment and implementation of a statewide Adopt-A-Lake Program in Wisconsin. The Adopt-A-Lake Program will have two goals:

- increased awareness of the value of local lakes among youth, and
- enhanced protection of Wisconsin's lakes.

Pilot Adopt-A-Lake Programs on four Wisconsin lakes will serve as models for the implementation of the program statewide. Two schools and two 4-H programs have been selected to represent

different regions of the state. These pilot programs will operate throughout the 1992-1993 school year.

The Adopt-A-Lake Program proposes to boost community involvement in the protection of inland lakes through educating and involving community youth. School groups, 4-H clubs and other youth organizations will learn about lake ecosystems. Participants will become actively involved in the protection of resources at the local level. The participation of youth in an Adopt-A-Lake Program may also stimulate greater involvement by adults in lake protection activities.

The Adopt-A-Lake Program is supported by a partnership of citizen action groups, education and business interests. The Fox Lake District has been a catalyst by obtaining a grant from the Wisconsin Environmental Education Board. Funding has also been provided by UW-Extension through the Renewable Resources Extension Act.

*For further information about the Adopt-A-Lake Program, contact Chari Towne, College of Natural Resources, University of Wisconsin-Stevens Point, Stevens Point WI 54481.*







## The Price of Pleasure: Part I

### Powerboating and Water Quality

*Of all the inventions humans have devised, the internal combustion engine has probably had the single greatest impact. The result of our love affair with fossil fuel-burning machines reverberates around the planet and sets the tone of our lives. Our society has become so entwined with these machines that our economy would probably collapse without them. We have conceived hundreds of ways to burn gas: toy planes, skateboards, leaf blowers, and lawn mowers--those noisy machines that pierce the quiet of a Sunday morning at the lake.*

We have not neglected the water. We have graduated from oars and sails to turbo-charged machines capable of skimming the water at speeds over 100 mph.



Concern has grown over the consequences of operating power boats, especially large power boats on small lakes. Studies have found that the impact of power boats is highly variable. It is determined by both the lake's features and the characteristics of the watercraft.

The differing physical features of lakes and rivers may predispose some to impacts, and serve to protect others. These physical features include the area, volume of the warm surface layer, the amount of shallow (less than five feet) or deep

areas, flushing rate, bottom type, vegetation type, and shoreline shape and composition.

Whether the predominant watercraft are outboard or inboard, propeller or jet propulsion makes a difference when assessing the potential impacts on a given waterway. Engine size and other engine characteristics, operational behavior, and use patterns all influence the degree of impact.

### Boat Wakes Can Cause Damage.....

The waves generated in back of a moving watercraft are called its "wake." The size of a boat wake is determined by the volume of the water displaced by the boat and the speed the boat is travelling. The wake does not always increase with boat speed because at higher speeds many boats "plane" across the surface of the water, and therefore displace less water. The larger the size of a wake, the more energy it contains.

Shorelines and shallow areas have evolved over thousands of years in response to the waves and currents that are naturally present. For example, large lakes often have rocky shorelines and extensive shallows that can withstand the pounding of large waves. In contrast, small lakes, narrow channels, and sluggish rivers often have steep shorelines with less stable soils. The operation of large or high-speed boats on small waterways can create waves greatly exceeding the size of any that would naturally be found there. The result, in many cases, is severe shoreline erosion.

### Impacts on Plants and Animals.....

Boat operation can inflict damage on rooted aquatic plants. Direct contact with the propeller can remove the growing tip of the plant or uproot it entirely. Swaths of weakly-rooted plants removed by propeller action or prop wash are often evident in shallow areas. Abrasion from boat hulls can damage or destroy plants, especially those with floating or emergent leaves. Murkiness, caused by suspension of sediments, can retard the growth of aquatic plants by cutting down on the amount of sunlight reaching them. Some aquatic plants can take root and spread from fragments, and motorboat operation has been shown to be directly responsible for the spread of nuisance species in some areas. Zebra mussels may be spread into inland waters via boat trailers, hulls, and the cooling waters of boat motors. The operation of motorboats has been shown to disrupt the behavior of fish and to alter



fish habitat in shallow water. However, no significant negative impacts to fish abundance and diversity have been clearly linked to boating activity alone. Some animals, such as loons, are sensitive to human presence; and irresponsible motorboat operation may, in some cases, reduce their range.

Nationwide, the outcome of the encounter between motorpower, musclepower and windpower propelled boats is not clear. Sentiments are strong and scientific research is limited.

#### **Recommendations for Reducing Negative Impacts.....**

1. Use a modern, well-tuned engine.
2. Limit the use of large engines in areas of shallow water with soft bottoms.
3. Avoid fuel spills or oily discharges.
4. Steer clear of wildlife and beds of aquatic plants.
5. Flush and/or rinse engines, trailers, and boat hulls between launchings to reduce the possibility of spreading nuisance organisms.
6. Do not create wakes that are larger than waves that occur naturally in the area where you are boating.
7. Be aware of the effects from your noise and wake on people and wildlife.
8. Limit your use of motors to lakes larger than 100 acres.

*This article--to be continued in Winter Lake Tides --was adapted from articles and information from Doug Fuller, Tip of the Mitt Watershed Counsel, Conway MI; and Ken Wagner, Baystate Environmental Consultants, East Longmeadow Mass.*

## **Ozone Pollution: Small Engines Contribute to State's Air Quality Threat**

From: Shawano Evening Leader

Hundreds of thousands of small engines on everything from boats to lawn mowers to leaf blowers will help Wisconsinites work and play their way through the summer weekends.

But these same small engines also contribute to the state's ozone problem, according to Department of Natural Resources air pollution specialists.

"Our modern lifestyle gives us the problems as well as benefits of small engines," said Donald F. Theiler, director of the DNR's Bureau of Air Management. "This summer, many of Wisconsin's motorboats will be on the water, providing good times, but also contributing emissions we can no longer discount and disregard."

Theiler's concern is reinforced by the fact that on weekends the amount of ozone-forming pollutants emitted into the air increases by about 20 percent. Part of this is due to the 470,000 motorboats registered in Wisconsin.

In a one-hour time span, a gas-fired chainsaw or lawnmower emits at least four times more volatile organic compounds (VOCs) than an automobile with current pollution control devices, according to department figures. A 55-horsepower motorboat emits at least nine times more VOCs than an automobile. A 12-horsepower lawn and garden tractor emits almost as much VOCs as an automobile.

In eastern Wisconsin, DNR figures show that motor vehicles and "area sources" generate more than 80 percent of the ozone-causing VOCs. Examples of area sources include solvents, small commercial facilities, and small engines such as lawn mowers, motorboats and chain saws.

According to Theiler, these area sources may be required under the 1990 federal Clean Air Act to produce fewer emissions and that could affect Wisconsin businesses.

"Most of America's small-engine manufacturers are in Wisconsin," he said. "We want to work with them to not only protect Wisconsin jobs but, with a more pollution-free engine, capture the business of environmentally-minded shoppers and



help regions throughout the nation meet clean air standards. If we're lucky, we will capture an opportunity that's good for the entire nation's environment and especially good for Wisconsin's small-engine manufacturers and their employees," Theiler continued.

Consumer products that emit ozone-causing pollutants may also eventually be regulated by the federal government. Some of the types of products that could be affected include adhesives and sealants, automotive waxes and polishes, household cleaners and polishes, lawn care products, pesticides, and personal care products.

These small area sources may not seem to cause much pollution, but when they are all taken together they pollute as much as, or more than, motor vehicles, according to DNR Air Pollution Specialist Mark Janssen.

In 1990, emissions of VOCs from all types of sources--mobile, industrial, and area--totalled 310 metric tons per day on hot summer weekdays in Wisconsin's 11-county ozone problem area (eastern counties from Kenosha to Door). Mobile and area sources accounted for roughly 43 percent each, with industrial sources accounting for 15 percent, according to state calculations.

On weekends, however, total emissions shot up to 370.5 metric tons per day. Area sources accounted for 52 percent of total emissions, mobile sources for 36 percent, and industrial sources for 12 percent.

According to Janssen, the area source emissions increased mainly because of motor boating and lawn mowing, two activities closely associated with weekends.



## The "New" Kid

A new UW-Extension specialist for the Wisconsin Lakes Program started work on July 1, 1992. "New," that is, in terms of being housed with UW-Extension in Stevens Point.

Michael Dresen is a familiar face to many folks who are concerned with Wisconsin's lakes. His previous position was with the Bureau of Water Regulation and Zoning in Wisconsin DNR in Madison. Shoreland zoning, wetland issues, and public access policy will continue to be subjects that Mike will address in his new role.

"I expect to look at lake organizations, education and training from a different perspective," comments Mike. "The focus is on the viewpoint of people outside of agencies and government."

Mike is relishing his first experience with lake-property "rentership and its attendant joys" while residing in the village of Scandinavia. Regarding his new job, Mike says "I look forward to renewing old acquaintances and making new friends in the lake community."

Dresen has assumed responsibilities for Jeff Thornton, who has taken a position with Southeastern Wisconsin Regional Planning Commission. Mike will be serving lake organizations primarily in the southern half of the state. You can reach him at the College of Natural Resources, UWSP, Stevens Point WI 54481 (715/346-2278).





## I'm Sorry

Adapted from an article by Lorrie Otto

What do you say to a neighbor who cuts down native trees and shrubs for a "better view of the lake?" What do you tell a neighbor who transforms a natural landscape into a green monoculture from house to lake edge. A neighbor who without a thought severs the ancient white pine in order to keep the needles off their roof.

"I'm sorry" will suffice. They may assume that you are apologizing for offending their sense of order on the lake. They feel secure because they are part of a massive, expanding, thoughtless landscaping amoeba destroying the cover of life on our earth.

You are really sorry because the people who mow lawns and remove native plants never seem to be aware of the precipitous drop in the songbird population, or notice the decline in the species of butterflies, or no longer even look for the pale green luna moths that once fluttered around our yardlights. You are sorry, too, that the blue heron never fishes near their home and the bunchberries and cardinal flowers only threaten to grow near their manicured retreat! Your special areas with their prairie flowers, native grasses, wildflowers, and ferns reflect the growth that once sheathed the state. You are sorry that your neighbor doesn't share your zeal and responsibility for trying to heal the earth by bringing back some diversity of plant and animal life that was here before we were.

You are sorry that the sound of lawn mowers, leaf blowers, and chain saws spoils your solitude. You are sorry that you can't hear the quiet calls of the returning juncos, or the sounds of rustling leaves. In sum, you are sorry that your neighbor is the victim of the tyranny of the tidy mind.



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**Lake Tides #8461**  
College of Natural Resources  
University of Wisconsin  
Stevens Point WI 54481  
715/346-3783

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*Published Quarterly*

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