



## STATE OF THE LAKES

*Second in a series on Wisconsin's lakes*

*By Susan Graham, Wisconsin DNR*

To understand the differences between people, it is beneficial to distinguish between genetic and environmental influences.

The same can hold true to understand the differences between lakes. Lake "genetics" can be represented by glacial geology, soils and physical characteristics like depth and surface area. "Environment" is portrayed by the land use in the watershed, including the length of time a watershed has been intensively developed by humans. Generalizing about systems as diverse and complex as lakes is difficult, but some patterns exist. In this installment we'll look at geology and soils.

Geologically speaking, immature landscapes (Great Lakes region) may be rich in natural lakes while older landscapes (Texas, Great Plains) tend to have few natural lakes.

It's hard to think of the Great Lakes states and Canada as immature, but we should thank our lucky glaciers for the diversity and abundance of high quality lakes. Continental glaciers formed the majority of the lakes in these regions during the most recent glacial period, termed the Wisconsin Advance. The

glaciers picked up and shoved around uncounted tons of rock and soil, like so much sand in a playground sandbox. Ice blocks buried within glacial debris melted to produce steep-sided kettle lakes. Other lakes were formed by till damming a valley, or by filling depressions left on the irregular, post-glacial landscape.

Throughout the nation, the geology of various regions determines the unique types of lakes found. In the Great Plains region are found sandhill lakes and prairie pothole lakes. The mountainous western states have alpine glacial lakes. Texas and the southwest region have dry lakes (*an oxymoron if there ever was one!*) and playa lakes, which are very large and very shallow. The southeastern region, such as Florida and parts of Georgia, has coastal plain and karst (or sinkhole) lakes associated with the limestone topography. In regions graced with few natural lakes, humans have often dammed up rivers to create reservoirs, another major lake type.

Lake surroundings play a tremendous role in determining the amount of nutrient enrichment in a lake. Soil type predisposes the



lake to high or low productivity, although human disturbance can increase nutrient enrichment. Soils formed beneath prairie sod, typical of southern Wisconsin, contain abundant nutrients. Rich, black, prairie soil in a lake watershed may be highly prized by farmers, but is the bane of folks who expect lake water to be perpetually clear. Soils formed in northern Wisconsin's forested landscape are relatively nutrient-poor, so lakes surrounded by forest soils tend to have relatively low productivity.

Generalizations don't always work. A recent study in and around Wisconsin's Polk

County investigated the reasons why neighboring lakes showed high variability in nutrients, despite similar glacial origins and similar forested soils. Rock contains varying amounts of available nutrients. If a great deal of groundwater flows through glacial till containing rock high in phosphorus—and feeds a lake—the dissolved phosphorus will make the lake naturally productive. Once again, we are reminded that each lake is an individual and must be examined on its own. Understanding the geological history of a lake can help us determine reasonable expectations and goals for protection and restoration today.

## **The Wheels of Justice Grind Exceedingly Slow!**

*by M. Dresen*

In the Autumn 1992 issue of Lake Tides we wrote about "The Case of the Rebuilt Wet Boathouse," an Oneida County Circuit Court case. The facts run something like this: In 1984 a tornado destroyed a boathouse built over the waters of Lake Tomahawk. The boathouse was constructed before a 1979 statutory prohibition on wet boathouses and was "grandfathered." The owner inquired of the DNR whether it could be rebuilt. The DNR replied that new wet boathouse construction was prohibited and that there was a statutory 50% of assessed value cap on rebuilding costs for wet boathouses which predated the prohibition legislation. However, an administrative rule provided an exception to the 50% cap if damage was due to windstorm, fire or vandalism. In short, no DNR permit was required to rebuild the boathouse and DNR advised the owner to check with local zoning authorities regarding their regulations.

Permission to rebuild was denied by the Oneida County zoning administrator citing the 50% cap rule (on rebuilding of nonconforming structures) in the local ordinance. The administrator's decision was upheld by the county board of adjustment. The boathouse owner rebuilt anyway and was subsequently ordered by the circuit court to remove the new boathouse and pay forfeitures. The owner appealed to a higher court and won. The county, supported by a brief from the Wisconsin Association of Lakes, appealed to the Wisconsin Supreme court and won a reversal.

Here, after almost 10 years, is the resolution:

- 1) The administrative rule provisions allowing 3 exceptions to the statutory 50% cap on rebuilding "grandfathered" wet boathouses was found to be invalid because no such exceptions were provided by the underlying statute (s. 30.121, stats.)
- 2) The Supreme court stated that "the express language of [this law] indicates that the legislature intends to phase out wet boathouses."
- 3) The order of the circuit court requiring removal of the wet boathouse and payment of forfeitures was reinstated.

Indeed, the wheels of justice grind exceedingly slow!



# Wisconsin Lakes Convention

March 25-26, 1994

Oshkosh Hilton/Convention Center



## Life on the Edge: Land Use and Water Quality

### **SPONSORS:**

*University of Wisconsin Extension*  
*University of Wisconsin Stevens Point*  
*Wisconsin Association of Lakes*  
*Wisconsin Department of Natural Resources*

**LODGING:** Blocks of rooms are being held at the Hilton (414-231-5000 or 1-800-365-4458) until March 1 [Rates are \$55 single, \$60 double, \$65 triple, and \$70 quad] and at the Pioneer Inn (414-233-1980 or 800-683-1980) until March 10 [Rates are \$69 single and \$79 double]. Ask for the Lakes Convention block.

**POSTERS:** Your lake organization or non-profit group is invited to bring displays, posters or sample materials. We will provide tables at no charge, but you will need to supply any support materials. To reserve a table or space, check the box on the registration form.



## 1994 Wisconsin Lakes Convention

### *Life on the Edge: Land Use and Water Quality*

The **1994 Wisconsin Lakes Convention** will highlight the theme "Life on the Edge: Land Use and Water Quality." We welcome you to Oshkosh, home of Oshkosh B'Gosh and the Experimental Aircraft Association. There are many more attractions and activities awaiting you in this city on the banks of the Fox River and Lake Winnebago. The location for this year's convention has changed, but the schedule of events will continue to bring you new information that influences the lakes of Wisconsin.

Three pre-conference seminars await you at this year's convention beginning at 10:00 am on Friday. Carol Browner, Administrator of the U.S. Environmental Protection Agency has been invited to give the keynote. Later on Friday representatives from the Departments of Industry, Labor and Human Relations; Agriculture, Trade and Consumer Protection; Natural Resources; and Transportation will discuss the roles of Wisconsin state agencies in Land Use and Water Quality. The workshops on Saturday have again been organized into "streams" to provide greater depth on a particular subject. Of course, you can skip from stream to stream to take advantage of the many different topics we are offering. The Governor has been asked to close the Convention with an address at Saturday's luncheon.

On behalf of the co-sponsors and stream coordinators, I invite you to join us!

Lowell Klessig, UWEX/UWSP  
Convention Coordinator

***IMPORTANT NOTE: This is the only brochure you will receive -- there will not be a separate mailing! See pages 7-8 for the convention agenda.***



PLEASE PRE-REGISTER BY MARCH 15

Name(s) \_\_\_\_\_

Address \_\_\_\_\_

Lake \_\_\_\_\_ County \_\_\_\_\_

☐ Would like a display table.    ☐ Have attended the convention before \_\_\_\_\_ times.

**Registration fee of \$35 per person covers materials, breaks, and Saturday lunch.** Additional lunch tickets may be pre-purchased for \$15. Send check payable to UW-Extension to:

Dorothy Snyder, UWEX  
College of Natural Resources  
University of Wisconsin  
Stevens Point, WI 54481

(phone: 715/346-2116)



# O N THE WATERS



## Take the First Step: Learning About Your Lake

*by Mary Danoski, Fox Lake*

Understanding the reasons behind a lake's difficulties is the first step to solving them. **Take the first step...** it is always the longest. If a group understands the facts and circumstances surrounding a situation, they are better able to make informed decisions.

One of the most effective methods of keeping a group strong and successful is through education. Working with your lake community and other organizations in your area to set up an education forum or workshop is a splendid way to get the answers you are looking for. If other lake groups in your area share common concerns, working together can lighten the workload, increase attendance, and help you discover innovative solutions.

Everyone is a potential teacher. Informal learning experiences are more likely to be effective because they do not have artificial barriers between the "teacher" and the "learner." Lake educators do not make people learn about their lake, they help them learn about it. If a lake is to recuperate or remain in good shape, the people that live on it and those that use it must understand it. All components in a lake ecosystem and social system should work in harmony. Dealing with one part without understanding the whole will accomplish little.

Members of the Wisconsin Lakes Program, the lake specialists at UW-Stevens Point,

your area DNR Lakes Coordinator and Wisconsin Association of Lakes representative are reliable sources of assistance. Your UW-Extension community resource development agent can also help organize your educational events. A special highlight of the Lakes Program is the annual Wisconsin Lakes Conference which provides an exceptional opportunity to get a look at the "big picture" of Wisconsin's lake issues. This year's conference at Oshkosh on March 25-26 will broaden your knowledge base on lake management.

As you plan for your local educational programming you will find a never-ending list of subject matter. Let your topics help you develop a long-range plan for your lake. Themes can help you understand how your lake is changing, the social and historical framework for your lake and the best strategy for lake management. Start by designing an educational program that will fit your lake.

### Ask Yourself:

- What does the group need to know to make informed decisions?
- What are our goals and the best methods to reach them?
- What educational format will work best?
- How can instruction be made enjoyable and who should the instructors be?
- What type of schedule should we develop?

Knowledge is the foundation on which the future of Wisconsin's lakes rest. Design your education programs with an eye toward the future, anticipate unforeseen occurrences that could change the lake, and recognize and explore all view points.



## Wealth for Wetlands

If you are interested in conserving wetlands, the North American Wetlands Conservation Fund may be able to assist. The fund calls for Canada, the U.S. and Mexico to work together to protect and restore the continent's wetland ecosystems. The fund is a multi-million dollar account allocated by the public-private North American Wetlands Conservation Council. Any individual, group, or agency with a quality project and qualifying matching funds can apply for a grant. Deadlines for the U.S. are April 15th and August 15th. For more information contact the North American Wetlands Conservation Fund, Council Coordinator, 4401 North Fairfax Drive, Room 110, Arlington, Virginia 22203, or call 703-358-1784.

## Life on The Edge A New Publication

A new publication will be available early this spring. *Life on the Edge* is a guidebook for those living on or interested in purchasing waterfront property. This "first of its kind" guide gives hundreds of practical tips that can prevent predicaments and make waterfront living satisfying. This text is a must for new waterfront home owners and an exceptional reference for the veteran riparian. Would you believe the guide contains "everything you need to know to live near the water?" You will find topics ranging from Aquatic Plants to Zoning and bats to boat traffic.

To reserve your free copy of this 22-chapter handbook contact your county extension Community Resource and Development agent, DNR Lakes Coordinator or your Extension Lake Specialist at the University of Wisconsin-Stevens Point.

## Adopt-A-Lake Update

With assistance from the Wisconsin Association of Lakes and the Department of Natural Resources, funding was obtained to formalize Adopt-A-Lake as a subprogram of the Wisconsin Lakes Program. A 50% coordinator is being hired as an Extension specialist at UW-Stevens Point. To date, over 175 people have indicated an interest in the position. During February we will conduct interviews and offer the position. The new specialist will be introduced at the Wisconsin Lakes Convention in Oshkosh on March 25-26 and will be available to meet with you and discuss your ideas.

## Lake Stewardship Nominations

There is still time to send in your nominations for the Wisconsin Lake Stewardship Awards. The deadline has been extended to March 1, 1994. Send your letter of nomination with any supporting documents to: Dorothy Snyder, UWEX-Lake Management, College of Natural Resources, University of Wisconsin, Stevens Point, WI 54481.

### CALENDAR:

"Enhancing the States' Lake Management Programs" March 4-6, Blackstone Hotel, Chicago (312-454-0400)

"4th Annual Zebra Mussel Conference" March 7-10, Madison (608-262-2755)

"Empowering Watershed Stakeholders" May 2-3, Blackstone, Chicago (312-454-0400)

### LAKE FAIRS:

Shawano - June 4

Northwestern WI - June 18

Polk County - July 23

Northwoods (Vilas, Iron, Oneida & Forest Counties) - July 28

Four Corners (Washburn, Sawyer, Barron & Rusk Counties) - Aug. 20

Central Wis. Waterfest - no date yet

More Lake Fair details in the next Lake Tides!



## ***Tentative Agenda***

Friday, March 25

8:30 am      **Registration begins**

9:00 am-      **Vendor Exhibits Open** - Mary Platner, WAL, Coordinator

7:00 pm      **Video Room** - Harry Hein, Coordinator

10:00 am -    **Pre-Conference Seminars**

12:00 noon

- WAL Annual Meeting - Lisa Conley, President
- Self-Help Monitoring Update/Luncheon - Jo Temte and Celeste Moen, DNR
- Lakes 101: An Introduction to Understanding Lakes and the Agencies Involved in Their Management
  - First Hour: Basic Lake Ecology - Fred Spangler, UW-Oshkosh
  - Second Hour: Who's Who in Lake Management - Jeff Bode, DNR

1:00 -          **Opening Plenary Session**

5:00 pm

- Welcome to Oshkosh - Richard Wollangk, Mayor
- Keynote Address
  - Carol Browner, Administrator EPA (invited)
- Acid Rain Update
  - Representative Jim Holperin
  - Doug Knauer, DNR
- Land Use and Water Quality - Wisconsin State Agencies Roles
  - DILHR - Carol Skornicka (invited)
  - DATCP - Alan Tracy
  - DNR - George Meyer
  - DOT - Charles Thompson (invited)
  - UWEX/UWSP - Michael Dresen (moderator)

5:00 -          **Evening Social**

7:00 pm

- Team Building with District Representatives (personnel from DNR, UWEX, and WAL will meet with their constituents)
- Visit with Exhibitors
- WAL Silent Auction and Raffles (Betsy Schulte - coordinator)

8:15 pm      **Lake Baikal—The World's Largest, Most Fascinating Lake** - Bill Volkert, DNR

*Final agendas for each day with times, speakers and locations will be available at the Convention.*



Saturday, March 26

8:30 am - 12:00 **Exhibits and Video Room Open**

**Concurrent Workshop Streams:** 7 streams with 3 workshops beginning at 8:30, 9:45, and 11:00

- ☞ **Getting Your Feet Wet:** An introduction to organizing your lake group [Robert Korth]
  - Why Get Organized? How do I Organize a Lake Association/Lake District? - Robert Korth, UWEX/UWSP
  - Case Histories of Organizations/Where to Go for Help - Mike Spellman, Lake Ripley
  - Local Organization Development - Bryan Pierce, UWEX-Oneida County
- ☞ **Organization:** Advanced topics for lake districts and associations [Elmer Goetsch]
  - Legal Issues for Lake Districts - William O'Connor, Wheeler, Van Sickle and Anderson, SC
  - Legal Issues for Lake Associations - Judge Charles Dykman, District Court of Appeals
  - Cooperating with Local Governments and Other Lake User Interest Groups - Mary Bierman, Forest County Association of Lakes and Elmer Goetsch, Wisconsin Association of Lakes
- ☞ **Land Use and Development:** Effects on lakes and what you can do about it [Michael Dresen]
  - The Zoning Game... Who's Who and What They Do - Michael Dresen, UWEX/UWSP
  - The Zoning Game... You Can Influence Land and Water Use Decisions - Rita Kozak
  - Natural Landscaping and Shoreline Protection - Steve Apfelbaum, Applied Ecological Services
- ☞ **Better Lawns and Dollars:** Grants, programs and applications [Richard Wedepohl]
  - Lake Protection Grant Program - Bob Wakeman, DNR and Jeff Maclay, Cedar Lakes
  - Non-Priority Lake Programs - Carolyn Betz, DNR and Ron Kroner, Lake Ripley
  - New Recommendations for Lawn Fertilizers - Wayne Kussow, UW Madison
- ☞ **Boating:** New laws for crowded waters [Tom Thoreson]
  - Local Boating Ordinances - Michael Lutz, DNR Attorney
  - Boat Piers, Boat Shelters and Associated Structures - Ken Johnson, DNR
  - Boating Access Policy - Tom Thoreson, DNR
- ☞ **Biodiversity:** Saving all the parts of the eco-puzzle [Rand Atkinson]
  - Biodiversity and Shoreland Habitat - Mike Molitor, UW-Platteville
  - Exotics and Their Control - Dan Helsel and Susan Borman, DNR
  - Fish Management - Rand Atkinson, Aquatic Resources
- ☞ **Shallow Lakes Management:** How we can help [Ron Bruch]
  - The Lake Winnebago Master Plan - Ron Bruch, DNR
  - Shallow Lakes: Plants, Rough Fish, Lake Use Impacts - Rick Kahl, DNR
  - How We Can Help Shallow Lakes - Art Techlow, DNR

12:30 - **Luncheon**

- 2:30 pm
- Jeff Bode, DNR - Master of Ceremonies
  - Stewardship Awards Presentation - Governor Thompson and Elmer Goetsch
  - Luncheon address - Governor Tommy Thompson (invited)



# LAKE LETTERS



## 2-Q-D: The Sharing of Time

*by Ralph N. Olsen, M.D., West Bend, WI*

During the 1970s and 1980s, my wife and I traveled each fall to Saskatchewan for waterfowl and sharptail hunting. These were our first experiences in a province which does not allow hunting on Sundays. These Sundays turned out to be very nice days. There were a couple of extra hours of sleep, visits to historic places, and time for hunting with binocular instead of a shotgun. Also, I realized that those who did not hunt could spend Sundays afield with no gunfire to disturb them—an idea that would be even more important to non-hunters in a crowded state like Wisconsin.

Recently, I read of a worried DNR supervisor from the northern Kettle Moraine Forest. He could not resolve difficulties be-

tween hikers and cyclists on his trails. How simple the solution seemed to me: let the bikers use the trails on Saturdays, the hikers on Sundays.

How many other conflicts in the outdoors could be solved by sharing time?

I live on a medium-sized lake where weekends are filled with the continuous noise of large motor boats. Their wakes pound the shore all day long, making swimming unpleasant. My wife and I canoe during the week, but others who bring canoes and kayaks to our lake on Saturday or Sunday have a miserable time.

I hear talk of taxes and stickers for those who pursue paddle sports and sailing. It probably is a good idea. But shouldn't these folks also have some quality time?

What I propose is a sharing of time. Why not, on all inland lakes, have two full days—all day Sunday and all day one week-day—of "slow, no wake," dawn to dark, for all motorized craft? The power boaters might discover hidden joys in this, as my

wife and I did during the no hunting Sundays in Canada. And what about two quiet days in the winter with snowmobiling halted to give the skiers and hikers a chance to enjoy the overwhelming stillness of winter?

A slogan for those who enjoy the peace of the outdoors should be:  
**"2-Q-D — Two Quiet Days."**





# REFLECTIONS



## Frozen in Time

It has been there for some time now...

When it first appeared it was hardly noticed... a circle on a reed, a luster on the water. But one still night—black and bitter cold—it expanded its jurisdiction. On subsequent nights the ice grumbled, whooped and moaned as it secured its gelid grip.

Now this season's young sun tests its strength on the ice. Life awakens below the armor. A stained record of last winter's snows leisurely relinquishes its frigid grip. The fox, the skier, the deer, the angler have all used this ephemeral byway... the record of their passing frozen in time.

R. Korth



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*Wisconsin Lakes Convention Brochure Enclosed in this Issue.*