

# AKETIDES

The newsletter for people interested in Wisconsin lakes

# **Uncelebrated Heroes—Part II**

Citizens Make the Difference in Wisconsin Lake Management

In the last issue of Lake Tides, we followed the history of Wisconsin's citizen lake organizations, from the earliest days at the turn of the century to the beginning of the environmental movement of the 1970s. We pick up the story here.

Volume 23, No. 1 Winter 1998 The evolution of state lake organizations. In response to a growing awareness of the harmful effects of pollution and the decline in the quality of lakes, the citizens on some Wisconsin lakes wanted to become more deeply involved in the management of "their" lakes. These citizens, armed with information produced through a six-year Inland Lake Demonstration Project, convinced the legislature to create Chapter 33 of the Wisconsin Statutes. The statute established a framework for public inland lake district activities and provided cost sharing funds for their efforts. Lake Districts have financial and legal capabilities that voluntary lake property owners associations do not have.

The first lake districts were formed in 1974 and by 1980 over 100 districts were operating. The Wisconsin Association of Lake Districts (WALD) was born in 1981. One of WALD's first challenges arose with the proposed elimination of state budget funds for the Inland Lake Renewal Program (the early version of today's lakes program), and the proposed elimination of Chapter 33 of the Wisconsin Statutes. With the state in a serious recession, funding for lake districts was eliminated. While WALD lost the battle to save the budget, Chapter 33 was saved. Even without the state cost sharing, citizens continued to form lake management districts and worked together to build a state program which supported their efforts at managing Wisconsin's lakes. The WALD board was not discouraged by the budget setback and adopted a long-term strategy to rebuild. Within three biennial sessions of the Legislature, most of the staff and cost sharing funds were restored.

WAL is born. For years, the two state lake organizations, the Wisconsin Federation of Lakes (WFL, representing lake associations) and the Wisconsin Association of Lake Districts (WALD), worked independently on lake issues. Each tried to meet the concerns of lake property owners and communities, and each labored to build the Wisconsin Lakes Program. The differences between the goals of the two groups was slim and they saw that they had much to gain by joining their resources and skills.

Wisconsin Lakes Partnership

In 1992, WALD and WFL merged to form the Wisconsin Association of Lakes. Today WAL has about 275 lake related organization members, representing nearly 78,000 lake property owners and lake users. The list on the following page is a summary of some of the efforts of concerned citizens and WAL members, working with legislators, to build a unique state lake management partnership in which citizens and their local lake organizations play a central role in preserving and protecting our state's lakes.

1985-86 - The DNR Lake Section was created and a core staff was established in Madison. The volunteer Self-Help Monitoring program was created and funded. WALD and WFL provided critical support for the Drunk Boating Bill. Lake Districts were made eligible for low interest loans from the state's Trust Fund Loan Program.

1987-88 - WALD worked to establish the Water Resources Account, setting aside motor boat gas tax to fund an expanded DNR Lake Management Program and Waterways Commission grants for boat access facilities. Establishment of this segregated account has been the keystone legislation that has made the financial support of DNR and UWEX lake staff and later programs possible.

1989-90 - The gas tax formula was increased and additional funds were provided for the new Lake Planning Grants and the UW Extension Lakes Program. WALD and WFL supported the formation of the Wisconsin Stewardship fund and lake organizations were made eligible for green space and streambank easement grants. Lake District powers were expanded to allow them to operate boat patrols, develop launch sites, and regulate boating traffic.

1991-92 - WAL worked to increase the funds allocated to the Water Resource account from the motorboat fuel tax. The dollars were used to establish the Lake Protection Grant program and create positions for DNR district lake specialists to provide technical assistance to lake communities and organizations. The Self-Help volunteer monitoring program was expanded. Lake and

sanitary district powers were strengthened.
Waterways Commission grants were broadened to include navigational channel dredging and the purchase of weed harvesting equipment and boater safety buoys.

1993-94 - The Adopt-A-Lake program was created and funded to encourage youth involvement. The Attorney General supported the right of local units of government to regulate jet skis differently than other watercraft. Lake districts were given the authority to operate boater safety patrols for which they could receive state funding.

1995-96 - The Dockominium case [ABKA, et al. v. Wisconsin Department of Natural Resources] went to court with WAL defending public ownership of lakebeds. Boating ordinances may be adopted to protect environmentally sensitive areas of a lake. Nonprofit organizations are now eligible for Lake Planning Grants, and cost share for both grant programs is now 75%. State funding was increased for local boating safety patrols.

1996 - The Wisconsin Association of Lakes League of Students (WALLS) was formed to provide a direct opportunity for students to get more involved with WAL.

1997 - WAL successfully worked to get an additional \$1.4 million for the Lake Protection Grant program. Lake classification legislation went into effect. Funds are now available to counties who want to classify lakes for appropriate shoreland and surface use.

**Policy Committees:** WAL members have represented lake interests dealing with many critical issues: phosphorus effluent limits from sewage treatment plants and industries; agricultural chemical use; forestry best management practices; revisions to the Non-Point program; lake access policy; shoreland management; surface water use; the Northern Initiatives; animal waste from barnyards; and shoreland zoning. WAL continues to work to defend the 75 foot building setback, and to preserve and strengthen protection for the fragile and critical shoreland corridors around our lakes.

WAL's involvement with these vital issues means a WAL volunteer has attended meetings for as long as two years to represent lake protection interests in agency rule-making processes. WAL board members are getting involved in all levels of state government. A member was appointed by the Governor to serve on the Land and Water Conservation Board. Another former board member is now a state senator. Because of these efforts, WAL has become a respected and influential partner in establishing state policies to protect water quality and promote safe lake use.

WAL's strength depends on the willingness of citizens to get involved. WAL has provided the political force to bring the Lakes Program to life. Our continued success will depend on whether good people like you are willing to volunteer your time and talent to make a real difference in the future of your community. I invite you to join us.

Call WAL at 800/542-LAKE.

By Lisa Conley, WAL Director Emeritus

In the next issue of Lake Tides, our final installment: The Partner-ship—Future Directions and Challenges



#### Wisconsin Lake Leaders Institute

Beginning in 1998, the Wisconsin Lakes Partnership will be providing lakeshore community leaders with a new opportunity for enrichment and leadership. Modeled on the highly acclaimed Wisconsin Rural Leadership Program, the Wisconsin Lake Leaders Institute is accepting nominations and applications for its first Crew.

The mission of the Institute is to "enhance the capacity of participants to provide leadership to other citizens involved in the management of lakes and lake watersheds." That leadership is expected to be exercised in roles such as a county lakes association officer, Wisconsin Association of Lakes Board Director, Geographic Management Unit citizen representative, or member of a state level committee as well as local lake association or district officer.

The Institute will consist of three two-day seminars at retreat locations in central, northern, and southern Wisconsin. Tentative topics, dates and locations are listed below:

May 14-15, 1998: Society and Environment: The Philosophy and Ethics of Lake Management (Central Wisconsin Environmental Station, Amherst Junction)

September 17-18: Aquatic Ecology and Watershed Management: The Impact of Development on Lakes (Kemp Natural Resources Station, Minocqua)

November 9-10: Organization, People, and Politics (Durward's Glen Retreat, Baraboo)

The Institute is expected to cost \$400 per person for meals, lodging, and field trips. Participants are responsible for \$200, which might come from their local lake organization or other sponsor. The Planning Committee will provide the other \$200. Scholarships may be available.

Nominations should be sent in letter form. Interested individuals may directly request an application. Nominations are due on January 15, 1998 and applications are due February 15, 1998 to:

Lowell Klessig College of Natural Resources University of Wisconsin Stevens Point, WI 54481

For details on logistics, call Barbara Borski, 715/346-3783 or email, bborski@uwsp.edu

#### Lake Stewardship Awards:

Often, individuals do work that goes above and beyond normal expectations. If you are aware of a person or group who deserves special recognition for distinguished service on your lake, consider nominating them for the 1998 Wisconsin Lake Stewardship Award. This is an opportunity to show people you appreciate their efforts for Wisconsin lakes. Categories include Individual, Group, Public Service and Youth (group or individual). The deadline for nominations is January 15th. Send your letter of nomination with supporting materials to Barbara Borski, UWEX-CNR, 1900 Franklin St., Stevens Point WI 54481 or call 715/346-3783 for more information.



# Wisconsin Lakes Convention

March 12, 13, 14, 1998

# Playing Together... Getting Along on Wisconsin's Waters

Stevens Point Holiday Inn and Convention Center





Do you have a pet peeve about how "other" folks use the water? Do you want to help find solutions and make your time on the lake more enjoyable? Then be sure to attend the 1998 Wisconsin Lakes Convention!

Nineteen ninety-eight marks the twentieth anniversary of the State Lakes Convention. The theme of this noteworthy event will be **Playing Together... Getting Along on Wisconsin's Waters**. We will feature and discuss a wide variety of issues relating to how folks use lakes and shores in particular, and water in general. If you have concerns about recreational uses like personal watercraft, power boating, water-skiing, sailing, canoeing, tournament fishing, noise, night lighting or other issues, this convention is a must!

Representatives and experts from major recreational water user groups from across the country have been invited to gather here. The Convention will give us an opportunity to explain issues, look for common ground, and find solutions to the challenges arising from the spiraling demand for recreation on and near the water.

We encourage you to seek out and invite a person or an organization whose idea of what is fun on the water may differ from yours. Ask them to join us here to discuss these important matters. We would also like to invite enthusiasts of all water sports and members of environmental groups and lake organizations to join us in March. We can learn from each other and work together to provide ways for all of us to enjoy our lakes and to protect them, while having a safe and gratifying recreational experience.

The 1997 closing ceremony featuring White Water, the phenomenal folk band from the U.P., was a big hit... so we're going to do it again! Help us celebrate "Playing Together" as we close the Convention on Saturday from 11:00-12:00.

Good Music! Good Food! Good Friends!



# Wisconsin Lakes Convention — Agenda

#### Friday, March 13

I I I was y g I vi at I c	
7:00 am	Registration and Exhibits Open
9:00 am	Welcome/Introductory Remarks/Governor Tommy Thompson invited
10:00 am	Panel Discussion: Recreational Lake Use [Representatives from various
	lake user groups will share perspectives and discuss solutions to issues]
12:00	Lake Stewardship Luncheon/Senator Russ Feingold invited
1:30 pm	Workshop 1 (choose from 7 workshops from stream topics listed below)
3:00 pm	Workshop 2 (choose from 7 workshops from stream topics listed below)
5-7:00 pm	Exhibitors Social and WAL Fundraising Raffle
7:30 pm	WAL Annual Meeting
8:30 pm	"Lake and Watershed Management in Asia/Pacific" — Lowell Klessig

At no time in the year will more information or people who work on lakes be present in one place.

#### Saturday, March 14

7:00 am	Registration and Exhibits Open
7:00 am	Topic Table Breakfast [Join the experts to learn and share information]
8:00 am	Workshop 3 (choose from 7 workshops from stream topics listed below)
9:30 am	Workshop 4 (choose from 7 workshops from stream topics listed below)
11-12:00	Closing Ceremony [Remarks/Music/Food]

On the Waters—Investigations and Innovations: Take an in-depth look at cutting edge research on the impacts of humans on lake ecosystems. Learn about new technologies in the boating industry and the possibilities for reducing the adverse effects of our recreational pursuits on Wisconsin lakes.

Twenty-eight workshops will be covered in these seven topic streams.

Under the Waves—Below the Surface of Things: Submerse yourself in the silent world. This stream is an opportunity to learn more about the plants and critters that inhabit the world just below your boat. Learn who they are, how they interact, and how our worlds can coexist.

At the Edge—The Riparian View: Are you curious about what you can do on and around your shoreline? Profit from knowing the ins and outs of piers and docks, lights and noise, shoreline restoration, and other issues that may arise when you're messing around in your shoreline area.

Tools and Rules—Navigating the Legal Landscape: This popular stream will update you on the current laws and regulations which affect Wisconsin lakes. Gain insight on a host of legal options for lake management, including boating ordinances, shoreland zoning, and lake classification.

Watching Our Waters—Volunteers in Action: Wisconsin leads the nation in its volunteer monitoring effort. This is a chance to learn about different types of monitoring opportunities and the results of ongoing efforts.

Playing Together—Finding Solutions: This unique stream will include a facilitated focus session to discuss current issues in recreational use conflicts with an eye toward finding solutions to tough questions. We will also look at the ongoing realtor's certification program and community involvement in watershed protection in the context of the DNR's Geographic Management Units.

**Products and Projects from the Private Sector:** Here's the best place to get the latest and greatest information from people who have to put their money where their mouths are. Join exhibitors and consultants as they present information on their new products and projects.



Custom-tailored workshops highlight Thursday's preconference work day.

Thursday's pre-conference work day will consist of several workshops, 3 or 6 hours in length. You may register for one 6-hour workshop or two 3-hour workshops (morning & afternoon). Registration will be limited, on a first-come, first-serve basis. See the separate registration form on the following page. Contact Dorothy Snyder at 715/346-2116 if you need detailed descriptions of the workshops. **You must pre-register by February 16th.** 

- ♦ Boating Safety Instructor Training (6-hrs, 9 am-4 pm) The Department of Natural Resources is looking for folks who are willing to donate a few hours of their time to teach boating safety education classes by becoming qualified, professional boating safety instructors. In this workshop, DNR instructors will train and certify you as a Wisconsin Volunteer Safety Instructor. (Limit: 80)
- ♦ Conflict Management (6-hrs, 9 am-4 pm) What pushes your hot button? This interactive session will take a look at the nature of conflict. You will cultivate skills that will help you find solutions to conflicts in your lake community. We will look inward for the causes of controversy and examine the characteristics of misunderstanding, disagreement, as well as the underlying causes of disputes. (Limit: 24)
- ♦ Through the Looking Glass: The World of Aquatic Plants (3-hrs, 9 am-12 am) Work with enthusiastic instructors and learn about the world of plant management. Become familiar with aquatic plants and gain a better understanding of their relationship to other residents of the lake community. (Limit: 40)
- ♦ Shoreline Landscaping (3-hrs, 1 pm-4 pm) Heard enough about getting rid of those green lawns down to the water's edge? Want to know what to put there instead? This workshop will give you ideas on what to plant and how to do it. (Limit: 40)
- **Laws and Lakes** (3-hrs, 9 am-12 am) Are you unsure of your legal choices when you get near the water's edge and the lake's surface? Here's an opportunity to work with and question experts and professionals about the law and its relationship to the lake environment.
- ♦ Lake Classification (3-hrs, 1 pm-4 pm) There is a major change afoot in how counties can manage lakes and shorelands. If you need to know more about the technical details of lake classification and related ordinance drafting, this workshop will be important to you. This workshop is designed for engineering, environmental and planning consultants, planning and zoning administrators or regional plan commissions. (Limit: 40)
- Surfing the Web: Computers and Lakes (3-hrs, 9-12 am) If you don't know a web site from a spider web, or want to learn more about the power and potential of the Internet, this workshop will allow you to work with the experts. You'll learn to navigate your way through the internet and find data about your lake. This hands-on workshop will take place at the UWSP Computer Lab. (Limit: 29)

**Lodging Information:** A block of rooms is being held at the newly renovated Stevens Point Holiday Inn (800-922-7880 or 715-341-1340) until **February 18, 1998**. Rates are \$52/single; \$82/double. Be sure to ask for the Wisconsin Lakes Convention block.

Other hotels nearby include: Comfort Suites (715-341-6000); Super 8 (800-800-8000); Road Star Inn (800-445-4667); Budgetel (800-428-3438); or contact the Stevens Point Convention and Visitors Bureau at 800-236-4636 or 715-344-2556.



# Registration Form-Thursday, Pre-Conference Workshops, March 12, 1998 You must pre-register by February 16th. Name Address City Daytime Telephone\_\_\_\_\_\_\_ Lake\_\_\_\_\_ County\_\_\_\_\_ **Registration Fee: \$25.00** includes materials,\* lunch and breaks. Pick either one 6-hr or two 3-hr workshops (one morning and one afternoon). You will receive confirmation of your registration or a refund if filled. Boating Safety Instructor training (6 hrs) 9 am-4 pm (Limit: 80) Conflict Management (6 hrs) 9 am-4 pm (Limit: 24) \_\_\_ World of Aquatic Plants (3 hrs) 9-12 am (Limit: 40) \*additional fee for "Through The Looking Glass. A Field Guide to Aquatic Plants" (pay on site) Shoreline Landscaping (3 hrs) 1-4 pm (Limit: 40) Laws and Lakes (3 hrs) 9-12 am (Limit: 40) Lake Classification (3 hrs) 1-4 pm (Limit: 40, Consultants or government officials only) Surfing the Web (3 hrs) 9-12 am (Limit: 29, course will be on UWSP campus, shuttle provided) Please make separate check payable to **UW-Extension Workshops** and mail by Feb. 16th to: Dorothy Snyder, UWEX-Lakes (Phone: 715/346-2116) 1900 Franklin St., CNR-UWSP Stevens Point, WI 54481 Registration due by February 25th... late fee \$10. Wisconsin Lakes Convention, Friday & Saturday, March 13-14, 1998 PLEASE DUPLICATE AND SEND SEPARATE FORM FOR EACH INDIVIDUAL. Name Address State Zip City My lake has sent a representative to the Convention times. I have personally attended times.

Daytime Telephone

Representing:

Lake

County

My lake has sent a representative to the Convention

\$\text{times.}\$ I have personally attended \$\]

\$\text{Friday March 13} - Convention (Day 1): \text{\frac{\$35.00}{\$35.00}} includes materials, lunch/breaks

\$\text{Saturday March 14} - Convention (Day 2): \text{\frac{\$25.00}{\$25.00}} includes materials, breakfast/breaks

\$\text{Package Fee for Friday-Saturday: \text{\frac{\$50.00}{\$50.00}}\$

\$\text{K-12 Student Fee: \text{\frac{\$5.00}{day}} (does not include meals)}\$

\$\text{Extra meal tickets: Lunch 3/13 \_\_\_\_@ \text{\frac{\$15.00}{\$}}; Breakfast 3/14 \_\_\_\_\_@ \text{\frac{\$10.00}{\$}}\$

\$\text{S10 late registration fee (registration must be postmarked by February 25th)}\$

\$\text{Total registration fee}\$

Mail check payable to \text{\frac{UWEX-Lakes Convention}{UWEX-Lakes}} to: \text{Dorothy Snyder, UWEX-Lakes,}\$

1900 Franklin St., CNR-UWSP, Stevens Point, WI 54481}

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#### The Flagship!

"Flagship of the Lakes Partnership," Self-Help continues to gather strength via a review of future growth opportunities. One volunteer noted "It feels great to have this opportunity to help protect this beautiful lake that I've loved for a lifetime!" Wisconsin Self-Help Lake Monitoring is one avenue people can choose to help understand, protect and manage our blue jewels.

Self-Help was launched in the early days of environmental volunteer monitoring programs, with 125 volunteers measuring water clarity in 1986. The program's sails filled with a steady breeze of popularity. Volunteers today can measure more than water clarity. The program expanded to include temperature and dissolved oxygen profiles, chlorophyll and total phosphorus, identification and mapping of aquatic plants, and watching for the first appearance of Eurasian watermilfoil or zebra mussels on the most vulnerable lakes.

In the last two years, the steady breeze stiffened. Over 730 people now monitor nearly 600 lakes. Of those, 70 wait to expand their monitoring to include the

chemistry components. An additional 80 people wait to join the basic program. The budget, however, has not kept pace with the growth in volunteers.

And so in August 1997, the call "All hands on deck!" formed a team of Lakes Partnership representatives from Self-Help volunteers, UW-Extension, DNR, and the Wisconsin Association of Lakes (WAL). This team was dubbed the Self-Help Task Force.

The Task Force members will be designing a strategy to steer the flagship forward into the future with an even keel. They are examining all aspects of the Self-Help program, keeping an open mind to new possibilities and ways of doing business. Task Force members see this as an opportunity to expand and strengthen Self-Help Lake Monitoring, strengthen the Wisconsin Lakes Partnership, and reemphasize the benefits of having caring citizens contribute to the well-being of Wisconsin's wettest assets—our sparkling lakes.

Watch the Self-Help page in the next issue of Lake Tides for details of the improved program!

### Attention Self-Help Volunteers! Training for Self-Help Leaders

Are you a "people" person with a passion for lakes?

Do you have allegiance to the concept of lake monitoring, encompassing other lakes as well as your own?

Would you feel good about playing an important role in the state's lake management program?

Have you been wondering what else you could do for Wisconsin lakes with a little free time over the next year?

If you answered yes to these questions, you could become a Self-Help Leader. A special 6-hour training session will be held at the Wisconsin Lakes Convention on Thursday, March 12, 1998. **Training for Self-Help Leaders** will give you the special opportunity to be the first line connection to the Wisconsin Lakes Partnership. You will learn the fundamentals of training new Self-Help water clarity volunteers including quality assurance, logistics, and who's who in lake management. You will receive a refresher course in basic lake science and practice ways to share that information with other volunteers and your lake community. **The workshop is limited to 25 current Self-Help monitors. Contact Susan Graham at Wisconsin DNR (608/266-8117) to pre-register.** 

## Junior High Studies Bass Lake!

Students from Almond-Bancroft Junior
High are participating in the DNR SelfHelp Lake Monitoring Program as part of
their Adopt-A-Lake Project. These students
and their teachers were trained by Laura
Herman, DNR and Libby McCann, UWEX.
They are excited to take part in this statewide program to protect and monitor lake
health in Wisconsin. The following article
was submitted so they could share their
activities with other Adopt-A-Lake groups.

Last spring, 7th and 8th grade classes from Almond-Bancroft took field trips to the Two Lakes area to do aquatic field studies. We studied Bass Lake, the deepest local lake near Almond, WI. Our primary focus was to examine and identify aquatic macroinvertebrates (organisms that can be seen with the naked eye and have no backbone) at the lake as part of our Life Science unit in invertebrates.

Working in teams, students measured water and air temperature, and took pH and dissolved oxygen tests. Students also collected and identified aquatic invertebrates. All life forms were safely returned to their homes, a very important part of the lesson. Each of these organisms plays a unique role in their aquatic habitat, and we want them to continue their life cycle through the seasons of the year.

Students then tabulated and averaged their data and collection results. We found the average water temperature was 48°F and the air temperature was 55°F. Oxygen levels tested consistently between 7.5 and 8 ppm. We found the pH to be 6.5 to 7—all fairly normal for that time of year and the water source.

Organisms present were quite diverse, which means that the lake is healthy. The more different types of critters there, the healthier the lake will be. The presence of mollusks, such as snails and clams, indicate that the pH levels are healthy, and the lake is not too acidic, since they cannot tolerate pH levels below 6. We also found high numbers of dragonfly and damselfly nymphs (the "baby" stages of these insects), which also indicates good water quality. Also found were water boatmen, predacious diving beetles, leaches, threadworms, and water mites.

Vertebrates observed were wood ducks, sandhill cranes, plus telltale signs of muskrat, and white-tailed deer. We also found a gray tree frog, which is a terrestrial frog. Even though we didn't see a bass fish, we did have a great trip to Bass Lake!

Submitted by Priscilla Tullberg, 7th grade student and Kathy Plaisance, teacher, Almond-Bancroft Adopt-A-Lake Participants.



# Mark Your Calendars! 1998 Fun Events for Students and Teachers

Jan. 16-18 WI Assn for Environmental Education Winter Workshop Treehaven, Tomahawk, WI (Contact Sterling Strathe at 920/893-5210)

Feb. 14-May 1 Order Storm Drain Stenciling supplies for Earth Week Storm Drain Stencil Project, April 19-May 1 (Contact Pam Packer at 608/264-8948)

Feb. 26 & March 5 Project WET Workshop (Grade K-6 Teachers), Appleton, WI (Contact Pat Marinac at 920/832-1741)

March 12, 19 Project WET Workshop (Grade 7-12 Teachers), Appleton, WI (Contact Pat Marinac at 920/832-1741)

April 22 Earth Day!

April 23 Project WET Workshop at the WSST Convention, Appleton, WI (Contact Libby McCann at 715/346-3366)

May National Wetlands Month!

May 9-16 National Rivers Clean-up Week & Wisconsin Rivers Clean Up Week (Contact Pam Packer at 608/264-8948)



# News from the Legislature

#### **Biennial Budget Bill**

Passage of the biennial budget bill (1997 Wisconsin Act 27) in early October resulted in several noteworthy developments in lake law.

#### Lake Classification:

Additional grant money was made available through the existing lake protection grant program for two new subsets of protection projects focusing on countywide lake classification. One grant, directed at counties, provides up to 75% state share with the total grant not to exceed \$50,000. The second type of grant is characterized as a "lake classification technical assistance" grant and is directed at nonprofit corporations to provide educational and technical assistance to local units of government and lake management organizations participating in a lake classification project. The legislation specifies that several factors are to be considered in the lake classification effort including lake morphology, shoreland development, potential for nonpoint source pollution, fish and wildlife populations, and type and level of recreational use. Rules and guidelines to implement the new grants are presently being developed. For more information, contact Carroll Schaal, DNR at 608-261-6423 or Tamara Dudiak, UWEX at 715-346-4744.

#### **Shoreland Zoning**

Several changes to the existing Wisconsin shoreland zoning program are of note: One amendment prohibits the DNR and counties from bringing enforcement actions against structures located within the 75 foot setback if the structure has been in place for more than 10 years. The second change would allow nonconforming structures to be rebuilt in their original location (and not be forced to conform to current shoreland regulations) if the damage is the result of wind, flood, vandalism or fire.

#### **Introduced Bills**

AB 424 (Representative Gard): Current rules promulgated by the DNR mandate that counties require structures to be set back 75 feet from the ordinary high-water

mark. Piers, boat hoists and boathouses are exempt from this requirement. This bill would repeal the 75 foot building setback and allow counties to establish a setback of any distance from the ordinary high-water mark.

AB 426 (Representative Dobyns), SB 285 (Senator Clausing): Current law imposes a slow no wake speed on all motorboats within 100 feet of a pier, raft, dock or restricted area. These bills would impose a slow no wake zone within 100 feet of the shoreline of a lake for all watercraft. AB 288 (Representative Black): Current law prohibits the operation of all motorboats, including jet skis, in excess of slow no wake speed within 100 feet of a pier, raft, dock or restricted area. This bill prohibits the operation of personal watercraft in excess of slow no wake speed within 200 feet of any dock, raft, pier or restricted area. This bill also prohibits the operation of personal watercraft in excess of slow no wake speed within 200 feet of any lake's shoreline.

SB 62 (Weeden and Farrow): Current law states that a minor under 10 years of age may not operate a motorboat and a minor under 12 years of age may not operate a jet ski. Minors who are 10 or 11 years of age may operate a motorboat if that individual is accompanied by a parent or guardian. This bill would require that minors 10 or 11 years of age have both a boating safety certificate and be accompanied by a parent or guardian when operating a motorboat. Minors under 12 years of age may still not operate personal watercraft (jet skis). Minors at least 12 years in age but under 16 may not, under current law, operate a motorboat unless accompanied by a parent or guardian. This bill proposes that individuals between the ages of 12 and 16 have a boating safety certificate regardless of whether that individual is accompanied by an adult or guardian. This bill would also require minors 16 and 17 years of age to have a boating safety certificate in order to operate a jet ski or motorboat. Adults born on or after Jan 1, 1981 would be required to hold a boating safety certificate in order to operate either a jet ski or motorboat.

# A Fish in Winter: Adaptations to Hypoxia

Some Wisconsin lakes, particularly shallow, productive ones, may become inhospitable environments for fish in winter. When oxygen levels get very low (a term called "anoxia") fish can suffocate (a term called "hypoxia") from lack of oxygen. This predicament is called "winterkill." Winterkill lakes develop as the result of a number of seasonal occurrences, the two primary ones being the elimination of photosynthesis (which means the end of oxygen production through the obstruction of light penetration by ice and snow

buildup) and the near depletion of existing oxygen by decomposing plant and animal matter. The minimum amount of oxygen needed for fish to survive and grow in "warm water lakes" and streams is 5mg/l and the standard for trout waters is 7mg/l.

The types of behavioral adaptations which fish have developed in response to hypoxic conditions has been the subject of some interesting research. One study took place on Mystery Lake, a small bog lake in Vilas County, WI with a maximum depth of 5 feet and a history of winterkill. The results of the study indicate that fish deal with hypoxia by moving to areas that are more oxygen-rich, specifically at the ice-water interface and at the inlets where oxygenated water from a stream enters the lake. Species varied with respect to the strategy they used to deal with anoxic waters. The species that emigrated from the lake in the fall, like the blacknose shiner, redbelly dace, fathead minnow, and Iowa darter, all did so at the same time when levels of dissolved oxygen were still quite high, suggesting that the movement of these fish was precipitated by the darkness following first snow and not necessarily by low oxygen levels.

Central mudminnows did not move to areas of higher oxygen during the winter and were found at all depths within the lake. It turns out that Mudminnows have a special adaptation to hypoxic conditions which allows them to breath oxygen-rich bubbles trapped beneath the ice. This adaptation allows mudminnows to tolerate hypoxic conditions and to forage with little stress into anoxic waters.



### **Quieter Personal Watercraft for 1999**

Bombardier Marine Products Division announced the installation of a new noise reduction system (D-Sea-Bel System) in all models of SEA•DOO watercraft and jet boats by model year 1999. The new system employs cutting edge sound reduction technology proven in the automotive industry to lower noise emissions substantially. The system utilizes a new muffler noise suppression system combined with composite parts to dampen engine noise levels up to 50% at all speeds. In addition, D-Sea-Bel system targets and suppresses specific noise frequencies, eliminating certain low frequency sounds and reducing high frequency sounds caused by vibrations. "The D-Sea-Bel system was designed to increase the enjoyment of watercraft, both for our riders and the community," states Henry Lonski, president of the Bombardier Marine Products Division. "In quieting all of our models by the year 1999, we have shown that we're listening to the public's concerns and are committed to finding solutions."



#### Lake Tides

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#### Wisconsin Lakes Partnership





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"We can find happiness in protecting the world around us not only because we cherish it for its awesome beauty, power and mistery, but because we cherish our fellow human, those who live today and those who will live tomorrow."

Jacques-Yves Cousteau 1910-1997