

LAKE TIDES

A newsletter for people interested in Wisconsin Lakes

Volume 19 No. 3

Fall 1994

STATE OF THE LAKES SHALLOW LAKES INITIATIVE

by Mark Sesing, DNR Lake Coordinator-Horicon

It's early morning and the large deepwater marsh awakens. Thousands of canvasback ducks fly overhead, surveying the vast stands of wild celery. Rush beds cover the marshscape, serving an enormous population of pike that rove the sun-filled water. Yellow and white water lily with their attendant bass pattern the backwater habitat. Herons stab and probe, cormorants dive, and the background fills with the bits and pieces of a thousand wild conversations. Several miles away, downstream, the thump of pilings being driven go unnoticed. The clunk and groan of wood, earth, and stone being embedded, fortified and stacked seems unrelated to the life upstream. A dam is under construction, complete with its promises of power, economic development and improved navigation. It casts a foreboding shadow far beyond its physical presence. As the water levels rise the lake bed darkens and over time celery and rushes, diminish. The wildness ebbs.

As the years roll on, the forests and wetlands are cleared and drained to make room for the acceleration of wheat and corn production that will feed a growing nation. The

conversion seems relentless, rolling over the watershed.

The protective shield that took thousands of years to evolve is removed in the geological blink of an eye. The water darkens a bit more as the deepwater marsh takes its last breath. The story repeats itself again and again. Lakes Butte des Morts, Fox, Poygan, Beaver Dam, Koshkonong, Buffalo, Puckaway, Big Muskego, Sinissippi and even Winnebago have similar stories to tell.

It is unlikely that we will restore the original qualities of our state's large shallow waterbodies and marshes. Caught between an ecological rock and a hard place, these lakes are not easy to classify or manage. Are they deepwater marshes or shallow lakes? What uses are they best managed for? What drives these complex systems?

Recently, concerned (and slightly frustrated) lake management staff from the Department of Natural Resources (DNR) and United States Geological Survey (USGS) met to discuss the concerns and challenges of shallow lake management. It was concluded that

work was needed in three familiar areas: **education, research, and organization.**

The biggest challenge will be **educational**. It is essential to develop an understanding among users of the ecological needs of these complex systems. Often, users and property owners expect shallow lakes to provide the same range of uses that deeper lakes provide. The selection of proper water levels is a fine example. In many cases water levels are maintained as high as possible to accommodate navigation and water sports. As a result the plant community suffocates, taking away the pike and waterfowl habitat while encouraging algae blooms. Water level management needs to be re-examined on our shallow lakes.

Outmoded aquatic plant management attitudes had led us to believe that abundant aquatic plants are undesirable indicators of pollution, when in fact dense stands are required components of a biologically healthy and diverse shallow lake system. Education will assist managers, users and property owners to accept shallow lakes for what they are rather than what we can do to make them like their deepwater cousins, the "dimictic" or stratified lakes.

Research needs are tremendous. Technical information needs to be compiled, organized, and communicated so that it is useable for shallow lake managers. In particular, understanding nutrient dynamics within these very productive lakes will call for a review of historical research and past projects. High nutrient levels that stimulate dense algae blooms continue to degrade water quality in nearly all of our large shallow lakes. A continual project-based research

program that unravels specific cause and effect relationships can begin to help us develop the tools for restoration.

The very nature of large shallow lake makes **organization** complicated. Distances and numerous properties make it tough for folks to establish into cohesive groups. Citizen organizations with an interest in large shallow lakes, DNR and the University of Wisconsin Extension (UWEX) are working

together to develop long-range stewardship plans.

The structure for a statewide large shallow lake initiative is taking shape. A steering committee will assist in integrating shallow lake projects and communicate findings. Workgroups will develop action plans for educa-

tion, research, and organizational matters. These action plans will require direct support and participation from DNR lake management units, property owners and lake users.

If you live on a large shallow lake, consider working with your lake organization to develop a management approach that encourages ecosystem sensitivity. If your shallow lake is lacking an organization, consider taking the initiative by raising support for forming one. Talk with your lake management specialist at the DNR or UWEX.

Finally, look inward and examine how personal expectations may influence the ecosystem on shallow lakes. Collectively, our ideas and stewardship philosophy have the potential to evolve into a major renewal for our great shallow lakes.

ON THE WATERS



Lake Grants: Dollars and Sense

Need help on your lake? Several grant programs are available from the Department of Natural Resources to assist lake organizations in resolving their lake issues.

Lake Planning Grants are available to gather data on lakes and their watersheds, conduct surveys, develop information campaigns and generally learn how to manage your lake. Grants of up to \$10,000 are available to lake associations, lake districts, and local governments. A 25% match must be provided by the lake organization. Many lake organizations have participated in the Planning Grant Program—their successes stories will be shared in future issues of Lake Tides.

Lake Protection Grants, another cost-share program, provide a 50% match up to \$100,000 for protection activities on your lake. This includes purchase of property or easements to help protect or improve the natural ecosystem and water quality of a lake; restoration of wetlands or lands draining to wetlands; and development of regulations and ordinances to protect lakes and the educational activities necessary for their implementation.

Money is still available through these grant programs to help your lake. Contact your DNR Inland Lake Coordinator for more information about these grant programs and how to apply.

Self-Help Lake Monitoring is Alive and Well!

Your occupation doesn't matter: homemaker, medical worker, artist, farmer, teacher, or resource manager. From across Wisconsin, a wide variety of people are collecting water quality information on inland lakes and reporting their findings to the Department of Natural Resources. Since 1986, we have watched Self-Help Lake Monitoring grow from 120 water clarity monitors to over 700 volunteers who collect a wealth of information on their lakes.

This year marks the beginning of aquatic plant monitoring. Plant monitors on a limited number of lakes are being trained to identify and map aquatic plants to provide baseline data on native plant communities and watch for any long-term changes that may indicate declining water quality. All Self-Help volunteers can participate in the **Eurasian Water Milfoil Watch**. Data collected through the Milfoil Watch will be used by UW-Madison researchers to build an understanding of how this plant spreads through Wisconsin's inland waters and its potential for spreading zebra mussels which can cling to the plants.

Over the next year, the Self-Help staff will be working with the lake volunteers, UW-Extension and Adopt-A-Lake Staff, county Extension offices, and Wisconsin Association of Lakes to identify new technology, partnerships and roles to allow further growth and expansion of the program. For more information or to volunteer, contact Jo Temte or Celeste Moen (608/266-8117).

Adopt-A-Lake Update

Adopt-A-Lake is an environmental education program designed to empower youth to take action on lake protection issues, primarily through hands-on lake activities. The program works to build partnerships between youth and adults while providing a better understanding of the social dynamics of lake protection for the next generation of lake leaders.

While the Adopt-A-Lake program is relatively new, we've had tremendous interest in building on the pilot projects implemented over the past year. Such groups as the Department of Natural Resources, Wisconsin Association of Lakes, University of Wisconsin, 4-H groups, teachers, naturalists, and other concerned citizens have been incredibly supportive—conducting training in water sampling techniques, promoting Adopt-A-Lake through their organizations, providing financial resources, and expressing general enthusiasm for the program.

The Adopt-A-Lake program is currently developing various workshops dealing with lake issues. Workshops range from all-day programs where teachers can receive DPI credit to 3-hour programs designed to introduce individuals to the Adopt-A-Lake concept. These workshops include a variety of hands-on activities dealing with water quality and give folks a chance to meet others interested in lake protection.

Any youth group—4-H clubs, environmental clubs, Girl/Boy Scouts, school groups—is encouraged to "adopt" a lake. We welcome your ideas and interest. If you have any questions or are interested in holding an Adopt-A-Lake workshop in your area, call Libby McCann, Adopt-A-Lake Coordinator (715/346-3366). Let's work together to give youth the opportunities they deserve to be leaders in lake protection.

The education of youth is critical for the long-term protection of Wisconsin's lake resources.

Calendar of Events

Aug. 24-26, 1994: Managing Watersheds to Protect High Quality Lakes, Traverse City Michigan (MI-NALMS, 616/347-1181)

Oct. 8, 1994: Southeast Wisconsin Lakes Conference, West Bend (contact Dan Wilson, Washington County Extension, 414/335-4480)

Oct. 28-29, 1994: Exotics and Lake Issues: The Citizen Connection, Alexandria Minnesota (MN-NALMS, 218/927-4100)

Oct. 31-Nov. 5, 1994: NALMS 14th International Symposium, "Managing Water Resources in the 21st Century: Finding Workable Solutions" (NALMS, 1 Progress Blvd Box 27, Alachua FL 32615, 904/462-2554)

April 7-8, 1995: Wisconsin Lakes Convention, Lakes and Development: Dollars and Sense, Stevens Point WI (UWEX-Lake Management Program 715/346-2116)

Purple Loosestrife

(*Lythrum salicaria*, *L. virgatum*, and their hybrids)

You've probably seen it along the highway—near marshes, wetlands, stream or river banks, or maybe on your lake—that pretty mass of purple flowers waving in the breeze. That's purple loosestrife, an exotic plant species that has invaded our wetlands. It may appear to be another delightful wetland plant—and is sometimes mistaken for Blazing Star, Fireweed or Blue Vervain—but this non-native plant can overtake a wetland, literally shading out the native vegetation, including rare or endangered plants. Loosestrife is not only threatening the native plant communities, but also the wildlife that depend on the native vegetation for food or shelter. As loosestrife dominates a wetland, traditional residents such as muskrat and waterfowl decline in numbers. Some avian species, like marsh wrens and least bitterns, are displaced completely from the wetland. Loosestrife itself doesn't provide much in the way of food or habitat for wildlife species. Its woody stems are unpalatable to many species.

So, How Did It Get Here?

Purple loosestrife is native to Europe and Asia where specialized insects and diseases have kept it in check. It was introduced to North America as a garden plant and has escaped its natural predators. Cultivars of loosestrife are still sold as garden plants in some parts of the U.S.; however, since 1987 *Wisconsin state law bans the sale, distribution, planting or cultivation of non-native purple loosestrife*. Some plant producers claim to have sterile varieties of purple loosestrife. It appears, though, that all cultivars are capable of producing seeds if they cross pollinate with another loosestrife plant... and the plants don't have to be near each other for pollination to occur. Honeybees are the main pollinators of loosestrife, and they commonly travel up to two miles during their forays.

How Does Loosestrife Spread?

Purple loosestrife spreads primarily by seed, but can also spread from broken-off stems that root themselves in moist soil. Loosestrife plants produce over 100,000 seeds a year. These tiny seeds can live in the soil for many years. Although most fall within a few yards of the parent plant, water, birds, animals and humans can transport seeds long distances. Any sunny wetland is susceptible to purple loosestrife invasion. But disturbances such as water drawdowns, damaged vegetation or exposed soil greatly accelerate the process by providing the substrate and sunlight exposure needed for germination. A loosestrife invasion usually begins with a few pioneering plants. These first plants may not spread for several years as they build up a large seed bank in the soil. When the right disturbance occurs, the loosestrife often spreads rapidly. Complete takeover of a wetland rarely occurs overnight—like a one-way ratchet, the loosestrife persistently takes space, never giving any up.

Where is Loosestrife in Wisconsin?

Purple loosestrife can be found throughout Wisconsin, but it is still in low density in most areas. The heaviest infestations are in the Southeast part of the state, along the Wisconsin River in the Central part of the state, and in the Horicon Marsh Area.

How Can I Identify Purple Loosestrife?

Purple loosestrife is easiest to identify when it blooms, from early July into early September. It grows above the water surface, two to seven feet tall, and the stems die back each year.

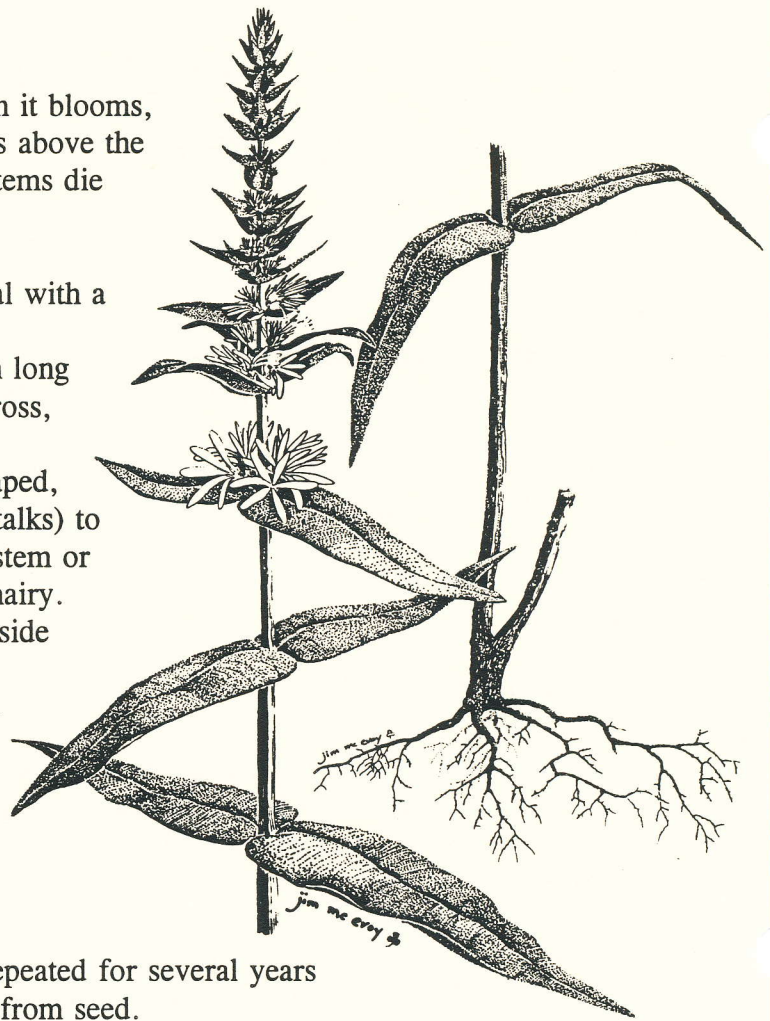
Growth: Upright, semi-woody, hardy perennial with a dense bushy growth of one to 50 stems.

Flowers: Purple to magenta, and numerous on long spikes. Individual flowers are 1/2" to 3/4" across, with five to six petals.

Leaves: Variable (usually opposite), linear shaped, smooth edged, and attached directly (without stalks) to four-sided stems. Sometimes alternate on the stem or are even bunched in whorls. Foliage may be hairy.

Roots: Woody taproot with numerous fibrous side shoots that form a dense mat.

Habitat: Moist soil to shallow water sites (wet meadows and pastures, marshes, river and stream banks, lake shores, ditches). Established plants can tolerate dry conditions.



Can Loosestrife Be Controlled or Stopped?

Any control method you select should be repeated for several years to catch missed plants and those reestablishing from seed.

- Biological controls are currently being tested and hold some promise for the future.
- Small young plants can be hand pulled, but make sure to remove the entire root—they will re-sprout. It's best to remove the plants before the onset of seeds (early August). Removed plant parts should be dried and preferably burned, don't compost them!
- Mowing hasn't been found to be an effective way to destroy purple loosestrife. Loosestrife can regenerate from broken-off stems that root themselves in moist soil.
- Careful use of herbicide is the most effective, efficient and least destructive means of removing large purple loosestrife plants. A permit is needed from the Department of Natural Resources when applying herbicides to Wisconsin waters. Contact your DNR District Headquarters for information on permit applications.

Prevention is the best way to stop the purple loosestrife invasion. The Department of Natural Resources recommends the following steps to prevent its further spread:

- *Be on the lookout for pioneering plants or isolated small colonies, especially in areas otherwise free of loosestrife. Remove pioneer plants immediately.*
- *Rinse off equipment, gear, clothing and footwear used in infested areas before moving into uninfested areas.*
- *Remove and destroy purple loosestrife planted in lawns and gardens.*
- *Do not move or transplant purple loosestrife.*

ECONOTES



Peace and Personal Watercraft

RRRRrrrrRRRRrrrrRRRRrrrr

Here comes another one! No matter what you call them... jet skis, wave runners or personal watercraft... they have aroused more than their share of controversy. Have solitude, peace and quiet become such rare commodities that these machines which intrude upon them inspire such visceral bitterness? Or is it just the generation gap, between the aging baby boomers and the youthful exuberance of generation X?

Personal watercraft currently enjoy tremendous popularity in the U.S. Nationally, sales have risen to more than 80,000 annually, with approximately 475,000 units in operation. In Wisconsin, the number of registered personal watercraft has risen from 5,000 in 1989 to 10,400 in 1993.

Unfortunately, they have evoked serious concerns about safety, protection of lake ecosystems and excessive noise levels. While personal watercraft account for only 1% of all watercraft in Wisconsin, they have been involved in about 20% of all state boating accidents in recent years. Overall, the accident rate for users of non-rented personal watercraft is 9 times higher than for motorboats and 169 times higher than rented personal watercraft.

Personal watercraft also raise environmental concerns. They can be operated in much shallower waters than most other watercraft, and the combination of high speed and noise can damage water bird habitats and aquatic vegetation, or drive reclusive species from

their homes. Shallow water operation can cause a higher risk of erosion and may increase resuspension of lake bed sediment. These nutrients and pollutants can contribute to nuisance algae or aquatic plant growth, oxygen depletion and other conditions harmful to aquatic life and recreational use.

Recently, several local governments (including the towns of Presque Isle in Vilas County and Summit in Waukesha County) have proposed ordinances which would restrict the times and areas of operation of personal watercraft as means of reducing problems. However, the DNR has taken the position that many such proposals would be unlawful.

All of us—DNR, local governments, waterfront property owners and the boating public—struggle to find a niche for more and various water users on the public water playground.

What is the right approach? What is to be lost or gained? In the next issue of *Lake Tides*, William Burns, Program Coordinator for the Wisconsin Association of Lakes, and William Engfer, DNR Boating Law Administrator, share their views with us in a point/counter-point exchange searching for an answer.

KNOCK IT OFF!

A new bumper sticker is available to help people understand the importance of removing aquatic plants from their boats and trailers. Contact your DNR lakes coordinator or county extension agent for your free sticker today! Prevent the spread of Eurasian water milfoil, knock all aquatic plants off your boat and trailer.

To Insure or Not to Insure? That is the Question

While there have been few reported lawsuits brought against lake organizations, the exposure to liability claims and litigation is real.

What type of insurance do I need and what does it cost? Should small groups buy insurance coverage? What is the risk? These are difficult questions for lake organizations. For some small organizations, the cost of insurance could be greater than their entire budget. Larger entities face similar questions as they examine their budget and strive to make the best use of each available dollar.

There are no universal answers to the questions that arise about insurance. Each situation is different, and each individual or board makes decisions on the matter, typically with the help of experts from the legal or insurance professions.

CARRIERS AND COSTS

Although there are no absolute rules, there are some guidelines that may help. When selecting a carrier, look for a financially sound company that has experience in this specialized area of coverage. Check for strength in the liability areas and special areas of coverage such as Errors and Omissions and Civil Rights. Look for a company that has worked with Lake Districts and Associations. Call a few of these customers to determine their experiences with the company. Contacting the Wisconsin Association of Lakes (WAL) for references is another option.

How much should your insurance coverage cost? There is no simple answer to that question. The legal form of the lake organization can have a significant impact on the available immunities and defenses to litigation. In very general terms, the more activities or properties that a lake organization

has, the greater its exposure to loss. The costs of insurance for a lake organization can range from \$700 for small organizations to \$10,000 or more for larger and more active ones. When considering insurance, consider the premium charged against court costs and judgments for claims that are *not* covered by insurance.

COVERAGE

What sort of insurance coverage can a lake organization purchase?

Property, Auto, Bonds, etc.

If the organization owns buildings or other real property, it will probably want to have Property Insurance coverage (fire, wind-storm, etc.). If it owns moveable equipment such as a weed harvester or boat, the investment in those items can be covered by purchasing Inland Marine coverage. Both Property and Inland Marine coverage are designed to pay for damage to the property itself, not for damage or injury that might be done to others.

Lake Districts and most Associations are considered employers by state law. According to the State of Wisconsin Department of Worker's Compensation, all Lake Districts should have a Worker's Compensation (WC) policy. A lake association may limit its exposure by relying on the services of volunteers and private contractors rather than employees.

An organization should have Auto Insurance coverage (liability and physical damage coverage) if it owns any vehicles, and may want non-owned and hired vehicle coverage even if it does not own a car or truck. This coverage will help to protect the organization if someone uses their own vehicle while

conducting business on behalf of the District or Association.

Some organizations do not have a building or much equipment, but they do have a desk and a file cabinet somewhere with records and papers. A form of property insurance can be obtained to help replace the office equipment. Valuable Papers coverage is available to help with the cost of reconstructing papers and records should they be destroyed.

General Liability, Errors and Omissions and Federal Civil Rights Coverages

General Liability coverage is important not only for payment of tort liability judgments against the organization, its officials and employees, and the costs of defense, but also for the expertise and resources of the insurer in managing and helping to defend lawsuits.

At a minimum, liability coverage should be written to cover the organization and board members, officials and employees. It may be desirable to add volunteers as insureds in some circumstances. Many lake organizations select policies with limits of liability of \$1,000,000 or more.

A liability insurance program should include Public Officials Errors & Omissions (E&O) coverage for the board and employees. E&O coverage can be written as a separate policy or provided as part of the General Liability policy. E&O coverage helps to protect and defend the individual board members and others should there ever be a suit alleging negligence caused financial or other non-physical injury.

Because they are a government body, Lake Districts also face exposure in the area of civil rights litigations under United States Code, Title 42, Section 1983 ("Federal Civil Rights statutes"). If a lake association has

employees, they have certain responsibilities to protect the constitutional rights of their employees, although these responsibilities are limited compared to a Lake District. Care should be taken not to discriminate against anyone because of race, color, religion or national origin.

Litigation has become a way of life in this nation. If we feel we have been wronged, we are quick to seek a legal remedy. An upshot of this situation has been an impressive increase in the need for and in some cases, the cost of insurance. Look for future Lake Tides articles with more details on insurance.

Rob Mentzer is Vice President of Field Services for an insurance organization specializing in lake coverage. He contributed to this article.

Life on the Edge... Owning Waterfront Property

*"Great new publication! I've given my copy to our lake association officials for review. Could I order another?" Carl Landgraf-
Peppermill Lake, Adams County*

*".. all who took part in putting it together should certainly be applauded. It's very informative and helpful in many ways."
Patti Mehlberg-Realtor, Mukwonago*

It's a sell-out! This 22-chapter handbook that covers topics from Aquatic plants to Zoning has been very successful. Our initial supply of over 7,000 copies has been depleted. We recently printed 5,000 more copies that are available for \$2.00 each + S/H. To order copies, write Dorothy Snyder, UWEX-Lake Management, CNR-UWSP, Stevens Point WI 54481 or contact your DNR or county extension office.

Lake Tides #8517
College of Natural Resources
University of Wisconsin
Stevens Point WI 54481
715/346-2116

Non-Profit Organization
U.S. Postage
PAID
Permit No. 19
Stevens Point, WI



Published Quarterly

Editor: Robert Korth
Associate Editor: Dorothy Snyder
Contributing Editor: Mike Dresen
DNR Coordinator: Celeste Moen
Photography: Robert Korth, Libby McCann

The contents of *Lake Tides* do not necessarily reflect the views and policies of UW-Extension, UWSP-CNR, or the Wisconsin DNR. Mention of trade names, commercial products, private businesses or publicly financed programs does not constitute endorsement. *Lake Tides* welcomes articles, letters or other news items for publication. Articles in *Lake Tides* may be reprinted or reproduced for further distribution with acknowledgment to the Wisconsin Lake Management Program. If you need this material in an alternative format, please contact our office.

ID: BE000BIDBR
BETSIE GRAHAM
BIOLOGY
UWSP 00000

Printed on Recycled Paper with Soy Ink

Forever

Water and wisdom about water may be as eternal as anything known to our species.
We are tied to it physiologically—sea water runs in our veins
and most of the rest of our bodies is water, too.
We are tied to it psychologically: the sounds of the ocean surf,
the shower, a fountain, a waterfall or rapids, rain on a tent,
or the simple dripping outside of our bedroom window soothes us
and brings back ancestral memories stored deep within our genes.
We are tied to it economically—to grow our crops, process our food,
and manufacture virtually all our goods.
We are tied to it aesthetically; we love to look at waterfalls,
fountains, rivers, ponds and especially lakes.
China, our oldest continuous culture, has an ancient character for the word "forever."
This letter is a representation of water flowing.

永
遠

- Lowell Klessig -