LAKE TIDES

The newsletter for people interested in Wisconsin lakes

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Spring 2002

Wisconsin's New Aquatic Plant Laws

Aquatic plant management presents a major challenge for lake organizations around the State of Wisconsin. Aquatic plants were discussed at the first meeting of the Lauderdale Lakes Association in 1902 and, over the next 100 years, the issues associated with aquatic plant management have continued to grow.

Lake organizations across Wisconsin frequently ask for help in dealing with nuisance levels of aquatic plants and troublesome invasive species. In September 2001, more help came in the form of new laws to build consistency and provide a small amount of funding for the Aquatic Plant Management program. The new laws represent some of the most significant changes to Wisconsin aquatic plant management to come along in decades.

Wisconsin State Statutes, s. 23.24, relating to aquatic plants, requires the Department of Natural Resources to establish a program to:

- Protect and develop diverse and stable communities of aquatic plants.
- Regulate how aquatic plants are managed.
- Provide education and conduct research on invasive aquatic plants.

A second law, s. 30.715 Wis. Stats., prohibits the launching of boats or boating equipment or trailers in navigable water if the person has reason to believe that the boat, boat trailer, or boating equipment has any aquatic plants or zebra mussels attached.

Wisconsin Lakes Partnership

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Musings on Mercury

Elemental mercury, or quick silver as it is often called, can produce deleterious health effects if not handled properly. Throughout the ages elemental mercury has been recognized as a poison. The Mad Hatter's behavior in Alice and Wonderland represented a condition known to befall hat makers who used an abundant quantity of mercury. Miners from the early mercury mines in Spain and Italy were frequently tested for neurological disorders as a direct result of inhalation of elemental mercury vapors and forced retirement at an early age was not uncommon. Today, efforts are underway to remove elemental mercury from our environment, e.g., school chemistry laboratories, mercury manometers in the dairy business and hospitals, mercury thermostats and switches.

Inhalation of mercury, however, is not the usual route into the human body. By far and away the most common exposure to mercury for humans and certain wildlife is ingestion. And it is not the silvery liquid of elemental mercury that is the culprit, but a far more toxic form known as methyl mercury. Methyl mercury is the form that bioaccumulates in top predator fish such as walleyes. We eat fish. The diet of certain wildlife, such as the common loon, is almost exclusively fish. Practically every state in the union has a fish consumption advisory because of elevated methyl mercury concentrations in fish. How did we, as stewards of the environment, allow this to happen?

Let us take a step back and put all this into perspective. The first environmental alarms associated with the consumption of mercury-

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Major Changes

- A permit will be needed for the removal and harvesting of aquatic plants.
- Mechanical harvesting will require a permit.
- The launching of boats or boating equipment in navigable waters is prohibited if there is reason to believe the equipment has aquatic plants or zebra mussels attached.
- Manual cutting and raking will be exempt from the permit requirement if the area of plant removal is no more than 30 feet along the shoreline and any piers, boatlifts, swim rafts, and other recreational and water use devices are located within that 30 feet.

The DNR is seeking input from lake organizations, aquatic plant service providers and individuals interested in protecting our valuable aquatic plant communities.

What are the next steps?

As a result of these changes, the Department of Natural Resources is drafting a new set of rules to guide the management of aquatic plants. The first priority is to establish a permit program for the removal of plants by cutting and harvesting, planting aquatic plants, and any other methods of plant control. A draft Administrative Rule is being developed, numbered and titled NR 109,"Aquatic Plants: Introduction, Manual Removal, and Mechanical Control Regulations". The DNR is seeking input from lake organizations, aquatic plant service providers and individuals interested in protecting our valuable aquatic plant communities.

What is proposed in the new rule?

Wisconsin Administrative Code Ch. NR 109 will create a permit program for introducing aquatic plants, manual removal, and mechanical cutting and harvesting. As proposed in an early draft:

- Manual cutting and raking will be exempt from a permit if the area of plant removal is a single area with a maximum width of no more than 30' along the shoreline provided that any piers, boatlifts, swim rafts, and other recreational and water use devices are located within the 30' zone. All cut plants must be removed from the water. (Also note that invasive aquatic plants can be manually removed without a permit. Invasive species now include: Eurasian watermilfoil, curly leaf pondweed and Purple loosestrife.)
- Mechanical harvesting will require a permit. Initially permits will be issued on an annual basis, and after completion of an approved aquatic plant management plan, permits may be issued for multiple years.
- Other methods of plant control as well as plantings and introductions will require a permit.

The permit may specify the quantity of plants, the species, the locations, the methods, the times, and disposal methods for managing aquatic plants. Fees will be established based on size of the proposed project. Proposed fees range from $20 to a maximum of $300, based on size of project. Manual removal by a riparian owner in an area 30 feet wide or less will not require a permit or fee. Fees collected from permits are used directly to defray costs in providing plant management technical services provided to lake users.

What is regulated?

The law allows DNR to designate plants such as Eurasian Water Milfoil, Curly Leaf Pondweed, and Purple Loosestrife as "invasive plants." No person may intentionally introduce these plants. In addition, anyone cutting plants of any species must remove them from the water.

Also, the Boat Launch Law makes it illegal to launch watercraft or associated equipment if a possibility exists that aquatic plants or zebra mussels may be attached. Fines under both laws are established at $200 for first time violations. Penalties for second violations may range from $700 - $2000 or include prison, and courts have the ability to order restoration.

Carex comosa

Who is affected?

Anyone involved in aquatic plant control should be aware that a permit may be required. The main exemption is for small-scale manual removal by riparian property owners which covers an area no larger than 30' along the shoreline. Lake associations, lake districts, contractors for cutting and

harvesting, lake management consultants, persons planning restoration projects, groups proposing water draw downs for plant control, or others managing, controlling, or planting aquatic plants should be aware of final rule development and pending changes.

All persons are covered by the boat launch law.

revised aquatic plant laws. The DNR is also requesting input from the public as this administrative rule is redrafted.

Stay tuned!

This is a new law and the rules to implement it are still being written. No final rules are available yet. The new code section, NR 109, is in effect as of May 2, 2002.

A new age for aquatic plant managment.

Aquatic plants have finally become a recognized resource in Wisconsin.

Applications need to be made on forms provided by the department. If the project sponsor has a DNR approved aquatic plant management plan, the permit may be issued for a three to five year term. There is an application fee. The fee is based on the size of the proposed project and ranges from $30 an acre to a maximum of $300. Monies collected will go to fund local department staff working on aquatic plant projects around the state. The project sponsors are encouraged to contact their local aquatic plant management specialist.

And the Status of Chemical Treatment?

Existing regulations covering chemical plant controls are presently unchanged. A chemical treatment permit is required for the use of any chemical applied to waters of the state. The existing administrative rule, NR107, addressing chemical aquatic plant management, will undergo revision this summer to include the new provisions of the

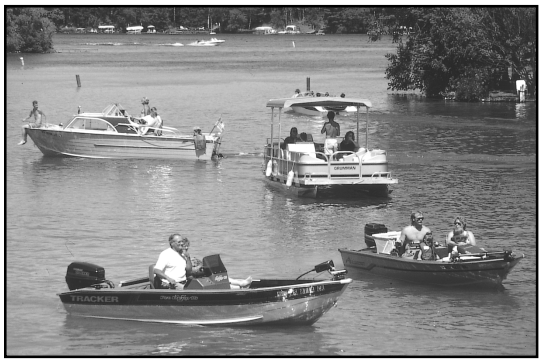
More revisions are under way. These revisions will cover chemical control, biological control, and other aquatic pest management methods. These changes will be drafted and presented during the summer of 2002, taken to hearing in fall 2002, and in effect by 2003.

Aquatic plants have finally become a recognized resource in Wisconsin. The loss of natural shorelines and the impacts of invasive species on aquatic systems have made us more aware of the important benefits plants provide. Plants create habitat for fish, wildlife, and invertebrates, protect shores from erosion and loss of aesthetics, and help maintain water quality. The objective of these statutory changes is to help protect native plant communities and the beneficial role they fill on lakes.

Written by Frank Koshere, DNR Statewide Aquatic Plant Management Coordinator and Jeff Bode, DNR Section Chief, Lakes and Wetlands

Stirring Up Trouble?

Love 'em or hate 'em, boats are a fact of life on the waterways of Wisconsin and of the nation in general. While boaters and non-boaters can, and frequently do, peacefully coexist, steadily rising registration levels, increases in boat power and size, and the ability of personal watercraft to access the shallow perimeters of lakes frequently lead to heated discussions about how lakes and rivers should be managed. One part of this discussion is social, with different user groups articulating different visions of the 'ideal' lake, ranging from an idyllic preserve to an outdoor amusement park. A second part of the discussion is scientific, with an emphasis on understanding and protecting lake ecosystems. After all, if a lake is allowed to degrade too far, the attributes that made it an attractive resource in the first place will have vanished.



The team from Pennsylvania State University conducted field studies in Northern Wisconsin in the summer of 2001 in order to measure the disturbance induced at the lake bed by passing watercraft.

While some of the 'problems' associated with boat use, such as noise, are tangible, others are more perceived. For example, many people are of the opinion that boats are (i) stirring up the bottoms of lakes and are (ii) therefore responsible for the observed declines in water clarity and quality seen in many lakes. When pressed for the facts upon which these conclusions are based, these same people often come up short. The scientific literature isn't much better, with only a few studies available to help guide managers in establishing restrictions such as speed limits and shoreline buffer zones.

Recent work by Dr. David Hill, Assistant Professor of Civil Engineering at the Pennsylvania State University, and Michele Beachler, M.S. Candidate in the same department, was conducted with the express goal of providing unambiguous and impartial data regarding point (i) above. Specifically, the team from Pennsylvania State Univeristy conducted field studies in northern Wisconsin in the summer of 2001 in order to measure the disturbances induced at the lake-bed by passing watercraft. Of particular interest was the tight 'cone' of prop / jet wash associated with the propulsion unit of the boats.

To this end, measurements of water velocity and turbidity were made directly underneath the sailing line of the boats. Measurements were made for the different boat speeds, different water depths, and different types of boats, including outboard boats, inboard boats, and personal watercraft. The amount of 'near-bed' velocity that is required to disturb sediment is determined by a large degree by sediment size; for medium sands having a diameter on the order of 0.3 millimeters, this velocity is approximately 1 foot per second. Of interest to the researchers, therefore, was establishing under what combination of conditions near-bed velocities in excess of this would occur.

Some of the results are fairly obvious. For example, it was found that boats operating in relatively deep water caused little disturbance to the bed while boats operating in shallow water caused significant disturbance. Also intuitive is the observation that boats of large horsepower induced larger disturbances than those of small horsepower. Of greater interest is the observation that the near-bed disturbance was determined by boat speed. For example, when a 150 horsepower outboard boat was tested in water of 6 feet depth, it was observed that very little disturbance occurred when the boat was traveling at very low (idle) speeds. More surprisingly, it was observed that the same boat operating in the same water depth at very high speeds (30 mph) caused equally little disturbance. At medium, so-called 'planing' speeds (6-12 mph), however, very large disturbances were registered at the lake bed. Results for the inboard boat and personal watercraft were qualitatively similar.

To complement and help explain the observations, a simple hydrodynamic model of the flow of water underneath passing boats was developed. The model takes as input basic

information about the boat and propulsion system, as well as the water depth. As output, the model predicts the near-bed velocity over a wide range of operating speeds. The agreement between these predictions and the observations was found to be quite good, indicating that the model should be successful at predicting the impacts of other boats as well.

The usefulness of the model is that if a waterway manager wishes to prevent resuspension of bottom sediments by a particular boat entirely, (s) he can easily determine the minimum operating depth of the boat. For example, for the 150 horsepower boat cited above, a minimum operating depth of roughly 9 feet must be maintained to prevent resuspension of 0.3 millimeter sand at all boat speeds. Clearly, this is a fairly conservative estimate, as boats typically spend only a fraction of their operating times at these 'worst-case' near-planing speeds. However, this research finally puts in place some facts and figures where before there was only intuition and speculation.

If a lake bed is characterized by finer-grained material ('muddy'sediments), this minimum operating depth will increase, as it takes less near-bed velocity to disturb these smaller particles. Also of interest, smaller boats will require less operating depth than larger boats. As an example, little disturbance was observed for the personal watercraft in water deeper than around 3 feet. As a caveat, however, the PWC tested was an early model; more recent models are significantly larger and more powerful.

One of the conclusions of this study is that some care should be exercised when applying blanket management policies such as speed limits. The current results show that boating

impacts, in the form of bottom stirring, vary significantly with boat size and speed and water depth. Incidentally, the same will be true for impacts in the form of boat wakes. A speed limit which might minimize the impact of a particular boat in a particular water depth may inadvertently maximize the impact of a different boat in the same water depth or the same boat in a different water depth. No-Wake zones, provided that they are truly enforced as no-wake zones, should be far more effective policy, for they directly regulate the physical impacts of boats, rather than simply one variable (speed) in a very complicated equation.

Some care should be exercised when applying blanket management policies such as speed limits.

For a copy of the paper, email David Hill at dfhill@engr.psu.edu.

By David Hill, Assistant Professor, Civil Engineering, Pennsylvania State University and Michele Beachler, M.S. Candidate, Civil Engineering, Pennsylvania State University

Adopt-A-Lake Activity Manual (expanded!)

This manual is a helpful resource to assist your lake group in any stage of your lake exploration. Expanded activities include; in lake investigations, alternatives for water clarity monitoring in shallow lakes, shore land checklists, frog monitoring, and equipment plans including view scope construction.

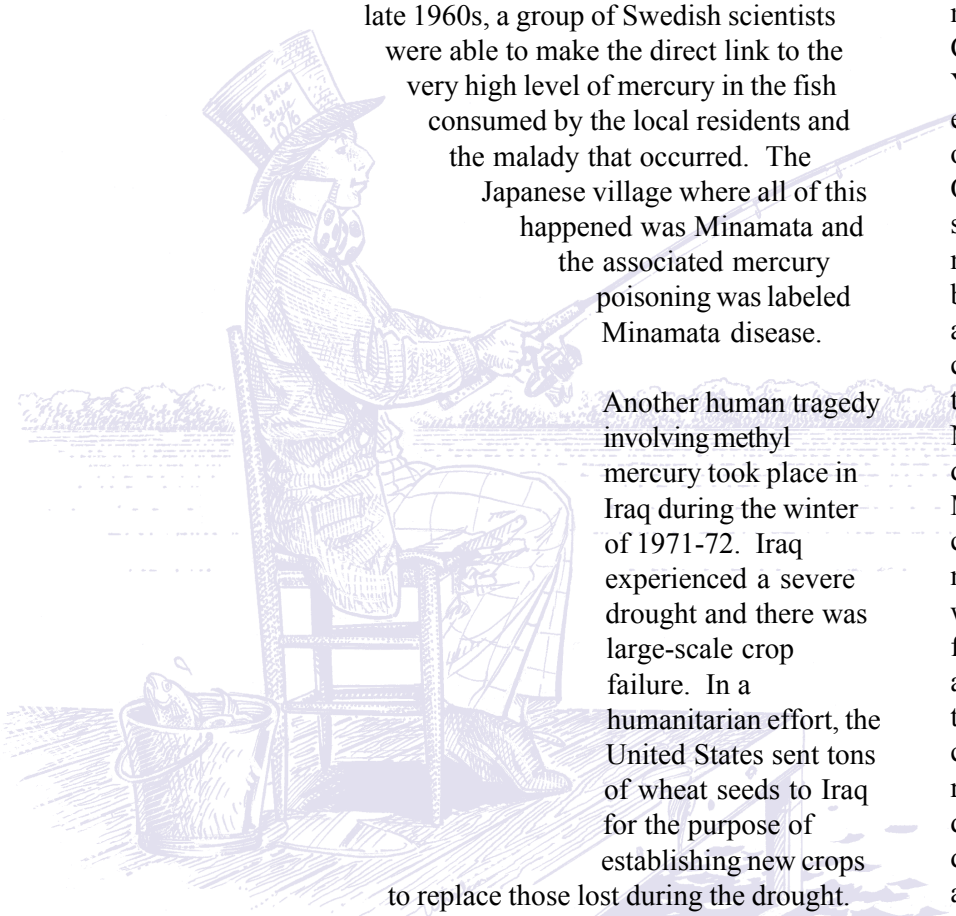
To order the Activity Manual send $15 to UWEX- Lake Program, Adopt-A-Lake, College of Natural Resources, 1900 Franklin St.,Stevens Point, WI 54481. For assistance contact Laura Felda at 715-346-3366 or lfelda@uwsp.edu

Remember to register your lake adoption projects and data at: http://www.uwsp.edu. /cnr/uwexlakes/youthprogram

Alisma Triviale

The new fish advisories are far more stringent for women during their reproductive years and for young children.

tainted fish were sounded in Japan during the 1950s. Several factories along Japan's seacoast dumped methyl mercury directly into embayment areas. Unknown to the local residents, the methyl mercury levels in their fish catches were extremely elevated and reached unheard of concentrations of 20 parts per million (ppm). The results of eating these fish were tragic. More than 750 people died and over 2,200 others experienced severe neurological and muscular disorders. In the late 1960s, a group of Swedish scientists were able to make the direct link to the very high level of mercury in the fish consumed by the local residents and the malady that occurred. The Japanese village where all of this happened was Minamata and the associated mercury poisoning was labeled Minamata disease.



Another human tragedy involving methyl mercury took place in Iraq during the winter of 1971-72. Iraq experienced a severe drought and there was large-scale crop failure. In a humanitarian effort, the United States sent tons of wheat seeds to Iraq for the purpose of establishing new crops to replace those lost during the drought. The seeds were coated with methyl mercury as a fungicide. This was a normal agricultural practice during that time. Instead of planting the seeds to grow a new crop, much of the population made bread directly from the seeds. More than 500 people died of methyl mercury poisoning from eating the bread. Dr. Tom Clarkson's group from the University of New York at Rochester, made the first risk assessment of methyl mercury poisoning in humans as a result of this tragedy. The human fetus became the most sensitive end point for methyl mercury poisoning. Very simple tests were used to correlate the amount of mercury burden in a mother's body as represented by the mercury concentrations in hair and the infant's ability to progress within a normal range of development. The fish consumption advisories developed during the 1980s through the 1990s were because of Dr Clarkson's studies from the Iraq poisoning. The federal government used 1.0 ppm of mercury in fish muscle as the action limit to initiate a warning and many states eventually went with 0.5 ppm.

More recent and thorough studies on the risk assessment of the human fetus to methyl mercury poisoning have been completed. Dr. Clarkson's group from the University of New York at Rochester began a study of a fish eating population in the Seychelles, a country off the east coast of Africa in the Indian Ocean. A Danish group of scientists are studying a population in the Faeroe Islands, north of Scotland and additional studies have been done in New Zealand. Several years ago, the National Academy of Sciences convened a panel to evaluate the results from these new studies. As a result of the National Academy of Sciences panel deliberations, states like Wisconsin and Minnesota have modified their fish consumption advisories for mercury. The new fish advisories are far more stringent for women during their reproductive years and for young children. This new mercury fish advisory includes all the lakes in the state for the most sensitive population (women of child-bearing age and young children). The rationale for the stricter limits is to protect the developing fetus and the normal brain development in children. The new guidelines are less stringent for adult males and women who are beyond their childbearing years.

The risk assessment of mercury exposure to wildlife is in the process of being completed by the Wisconsin Department of Natural Resources (DNR). The common loon has been selected as the sentinel wildlife species for this study. The diet of the common loon is almost exclusively fish. The results of field and laboratory studies conducted by Dr. Mike Meyer (DNR) and Mr. Kevin Kenow (USGS) suggest that the common loon is not significantly impacted at the present mercury exposure found in northern Wisconsin lakes.

The laboratory studies suggest there may be some physiological damage at a mercury dose level 1.5 times that is found in the northern lakes. The bottom line: The loons are holding their own as long as there is no increase in mercury exposure in the future.

What is being done to reduce mercury concentrations in fish from Wisconsin lakes? Since the 1970s, the DNR has monitored mercury in Wisconsin lakes and tested fish tissue for mercury. As the result of the federal clean water act in 1972, direct discharges of mercury to our public waterways were controlled. In addition, methyl mercury is no longer used as a fungicide in agriculture and the wood products industry. Mercury has been removed from latex paints. The chlor-alkali industry has developed non-mercury methods to create their products. (Wisconsin has one of the 12 remaining mercury chlor-alkali plants operating in the country). Mercury has been eliminated from batteries thereby reducing mercury emissions from waste incinerators. New efforts at controlling environmental release of mercury are continually being advanced, e.g., eliminate mercury fever thermometers, reduce the use of mercury switches in thermostats and automobiles. The major emitters of mercury to the atmosphere, coal-fired power plants, smelters and incinerators, are facing increased pressures to reduce their mercury output. The amount of mercury emitted to the atmosphere from the white pine smelter in the UP of Michigan was estimated to be 1200 lbs. per year. That smelter ceased operation in 1995.

In Wisconsin, the DNR is holding public hearings on proposed rules to control mercury emissions from coal-burning power plants within the state. The rules would set mercury emission ceilings for large sources and require major utilities to reduce mercury emissions in three phases over a fifteen year period. The proposed rule also requires new sources of mercury emissions to be offset by mercury emission reductions from existing sources. Certified Emission Reduction credits would also be available to achieve compliance with the emission ceilings and reduction requirements. Credits can be gained through the use of new technology or other measures which result in a significant reduction in mercury air emissions. At the federal level, the USEPA has made a decision to control mercury emissions from incinerators and is seriously looking at some level of mercury reduction from coal-fired power plants.

Mercury levels accumulate in the food chain, so large predator fish contain the highest amounts.

The debate continues about the effectiveness of local mercury controls and, to some extent, even national mercury controls. A debate of this nature is good. It forces all sides to support their arguments with facts and eventually decisions will be made based upon science, social priorities, cost effectiveness and environmental health.

The debate continues about the effectiveness of local mercury controls and, to some extent, even national mercury controls.

Written by Doug Knauer, Chief, Environmental Contaminants Research, Bureau of Integrated Science Services, WDNR
Contributions from Tamara Dudiak, Lakes Specialist, UW-Extension

24th Annual Lakes Convention
How's the Water: Recreation on Wisconsin Lakes

Another state Lakes Convention enters the history books! The 24th Annual Lakes Convention, held for the first time in Green Bay, Wisconsin, was a great success in spite of the March thunderstorms that greeted participants' arrival.

This year's theme focused on water recreation and speakers from across the nation gathered to discuss key issues and future directions. Lieutenant Governor Margaret Farrow spoke about the threats posed by aquatic invasives and Secretary of Tourism, Moose Speros, reminded the group that state waters are vital to healthy tourism in the State of Wisconsin.

Stewardship award winners for 2002 were as follows: *Individual:* **Pauline Kelley**; *Youth:* **Phelps School District and North and South Twin Lakes Association**; *Business:* **Aquarius Systems**; *Public Service:* **Dr. Jeffrey Thornton**; and *Group:* **Whitefish Lake Conservation Organization**.

This year's theme was water recreation and speakers from across the nation gathered to discuss key issues and future directions.

We regret that we omitted to mention **Tom Ward** of the Manitowoc County Soil and Water Department as a nominee in the Public Service category. Tom has been the driving force behind many great lake projects in that county. Tom Ward is known for his passion, his willingness to help others, and his ability to bring people together to solve the challenges of lake management. Thank you, Tom, for many years of hard work and enthusiasm. Congratulations to all!!

Lake Convention participants, in addition to gaining information on a range of traditional subjects like limnology, lake organizations and natural history, also had the opportunity to learn new skills in the areas of fly-fishing and canoe construction.

Lieutenant Governor Margaret Farrow

Pauline Kelley of Legend Lake accepts the Lake Stewardship Award from Jeff Bode, DNR Section Chief, Lakes and Wetlands

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2003 Wisconsin Lakes Convention-25 Years of Lake Management
April 10-12, 2003, Green Bay, Wisconsin

CALL FOR PRESENTERS

The Wisconsin Lakes Partnership is inviting proposals for interesting and informative presentations for the 2003 Wisconsin Lakes Convention. The theme highlights the progress made and the lessons learned in lake management over a 25 year period.

Within the context of the proposed theme, we would like to encourage presentations on the following topics:

(1) shoreline management (restoration, demonstration projects, zoning, etc.)
(2) aquatic ecology (plants, fish management, exotics, etc.)
(3) youth education
(4) organizational development (grants, leadership training, etc.)
(5) water recreation
(6) water law and land use law
(7) other water related topics

GUIDELINES FOR SUBMISSION

(1) Submit:

- *Presentation Application* (see below)
- *Short summary* (60 words maximum) describing the presentation or poster. This summary will appear in the conference program.
- *An abstract* (250 words maximum) which will be used by those reviewing the proposals. Be sure to provide a detailed description of what will be covered as well the target audience and goals of the presentation.

(2) Return application **by August 15, 2002** to:

By mail: Sveindis Meyer
College of Natural Resources
University of Wisconsin-Stevens Point
1900 Franklin Street
Stevens Point, WI 54481-3897
Electronically: svmeyer@uwsp.edu
By fax: 715-346-4038

Notices of acceptance or rejection will be mailed by October 15, 2002.

Questions? Contact Tamara Dudiak at 715/346-4744 or tdudiak@uwsp.edu.

2003 Lakes Convention Presentation Application

Presentation Title:_____

Primary presenter: _____
Organization:_____
Address:_____
_____
Phone:_____ Fax:_____
Email:_____

Length of proposed presentation (check one): ___ 20 minutes
___ 50 minutes

Which topic(s) (see above) does it address? (circle all that apply)
1 2 3 4 5 6 7

Please attach the short summary and abstract and include with this application.

If you want to play, would you be willing to pay?
- USER FEES -

Minnesota, Illinois and Michigan all use some combination of user registration fees to support recreational activities.

Wisconsin is fortunate to have one of the finest lake management programs and partnerships in the nation. Over the years, agencies and citizens in Wisconsin have been proactive in preserving and protecting these natural treasures. However, shrinking budgets and expanding deficits are affecting our ability to continue the work. Lake management costs dollars, the question becomes where should the monies come from. General purpose revenues are unlikely to be directed to lake management in the near future. Neighboring states have concluded that the most equitable way to raise needed funds for lake and rivers management is through user fees. Minnesota, Illinois, and Michigan all use some combination of user registration fees to support these activities.

To gauge your opinion on user fees, we surveyed attendees of the 2002 Lakes Convention. Approximately 53% of convention attendees, or 235 people, answered the survey. Here are the results:

- 72% would support a user fee to fund lake management
- 70% would support a user fee on boat trailers
- 57% would support a user fee on canoes and kayaks
- 56% would support a fee on ice shanties
- 34% would support a fee on piers
- 47% would support a fee on swim rafts

Many survey respondents noted that funds raised should be channeled directly back into lake management. Let us know how you feel about fees - contact uwexlakes@uwsp.edu, or call 715-346-2192.

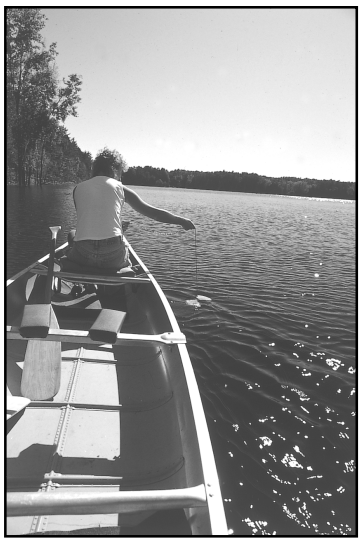
Are user fees in our future?

Self-Help Updates for 2002

All Self-Help volunteers who signed up to receive Annual Reports should have received their reports by now. In addition, the packets included paperwork regarding the upcoming monitoring season. Supplies and equipment go to a "lead equipment volunteer" on each lake. If you have not received your report, or if you need additional supplies, please contact Self-Help staff in Central Office at 1-888-947-3282.

What is going on with the Remote Sensing Study?

Over the past 2 years, Self-Help volunteers have assisted in a collaborative research effort with the University of Wisconsin Environmental Remote Sensing Center by taking secchi readings on dates when the satellites were overhead. The volunteers' participation has allowed the University to successfully calibrate computer programs that enable satellite imagery to be used to predict Secchi Disc Depth and other water quality parameters on lakes. This means that we will soon have water clarity data on the majority of the 15,000 lakes in Wisconsin (with the exception of very shallow lakes).



A Self-Help volunteer dips the disk.

Research continues at the Remote Sensing Center. Ultimately, the goal is to put the satellite data into everyday use by making the water clarity data derived from the satellite imagery available to the DNR and to the public. This will be the focus of the DNR and Remote Sensing Center's efforts over the next few years.

Self-Help teams up with the UW Remote Sensing Center.

Enclosed in the packet received by Self-Help volunteers is a red sheet with the 2002 Satellite Schedule. If you are able to go out on the water on any of the dates when the satellite will be overhead (depends on your Path #), the Remote Sensing Center will use your data. If you do not know what satellite path your lake is in, please call Self Help Central Office at 1-888-947-3282. We will tell you what path your lake is in. You can also find the Path number for your lake on the Self-Help website, under the Lakes Data section.

Self-Help Lake Monitoring Begins its 17th Monitoring Season

Self-Help Lake Monitoring, Wisconsin's volunteer lake monitoring network, began in 1986 with 126 lakes participating statewide. Presently, over 900 volunteers monitor over 600 lakes across the state. Interest in volunteer lake monitoring continues to increase, with over 122 new volunteers starting in 2000, and 194 new volunteers in 2001. Volunteers monitor secchi depth, chlorophyll, total phosphorus, temperature, dissolved oxygen, milfoil, plants, zebra mussels, purple loosestrife and more. For many volunteers, their effort extends beyond just monitoring, and includes active involvement in their lake organization and other activities.

At the end of every monitoring season, volunteers receive awards in a variety of categories. There are over 30 volunteers who have been monitoring for over 15 years. There are also volunteers who have monitored for 1, 5, and 10 years, as well as volunteers who have taken over 100, and over 500 secchi disc readings since they started monitoring! The award recipients for 2001 can be found on the Self-Help Lake Monitoring website at http://www.dnr.state.wi.us/org/water/fhp/lakes/shlmmain.htm.

The Truth about Taxes

"Like mothers, taxes are often misunderstood, but seldom forgotten."
-Lord Bramwell

The property tax in Wisconsin is used to fund local government functions such as schools, health and human services, and police. It is intended to be a tax on wealth, with well-off households paying a larger share of the community expenses. It is, however, only indirectly associated with a household's actual ability to pay the tax. Annual income may or may not reflect the value of one's personal property. This is most evident where the value of property increases due to market forces, such as lakefront properties or gentrifying inner-city neighborhoods. And while few complain when their investments outperform the market, those with rapidly appreciating real estate often wonder if their growing tax bill is worth the return on their home. As imperfect as the property tax may be, it is important to understand it before criticizing it unfairly. This article explains why, in a general sense, lakefront owners are paying a growing tax bill even though local government spending may not be growing.

As imperfect as the property tax may be, it is important to understand it before criticizing it unfairly.

To begin, let's imagine a community where the boundaries for the local government and the school district are the same. Let's further imagine that all the properties in the community are the same value: they have the same size lot and the same size house. Sort of a dull community, but not too different from what one might find in suburban Milwaukee. In this case, everyone pays the same property tax to fund the local government and the school. Now let's consider what would happen if some of the property locations in the community were to become more desirable; they have a unique view, or they are easier to get to and from. The value of these locations would increase because people are willing to pay more to have them (to get the good view, or the easy access).

Now that some properties are worth more than others, the property tax begins to shift. Even though the total expense for government is the same, some people (those with the views and easy access) begin to pay a larger share; others begin to pay a smaller share. This tax shift occurs even if the tax rate or tax bill declines. What is important here is the relative value of the property- what the property is worth compared to the other properties in the community.

High property taxes, but modest lakeshore cabins.

This effect is compounded through a second change. The more valuable locations are more likely than the others to be improved upon. If, for example, the owners with the view experienced a doubling of their property's value, lenders would be more willing to provide credit to finance, say, a new deck to enjoy that view. Perhaps they would fund a complete tear-down of the house and replacement with a bigger one with picture windows. What's important to the bank is the relative value of the improvements compared to the value of the land; as the land increases in value, so too does the money available for the improvements.

Things really start to take off when the new improvements yield "neighborhood" effects. The houses next to the one with the view become more valuable simply because they are near a more valuable property. They too become more "creditworthy" and are, in turn, easier to improve. A "virtuous cycle" yields an area with property values growing at an increasing rate. All the while the remaining properties- those without the view and far away from the appreciating neighborhood- remain relatively the same in value, and so the shift in property taxes continues and grows.

The relative differences in property values within a community and the resulting shift in taxes are not the only reasons that lakeshore owners feel the pinch. In Wisconsin, property taxes are only a part of total local government revenue. In the interest of equality, the state helps fund services- especially schools- using income tax revenue as a source of redistributive income. In theory, the transfer of funds from wealthy areas to poor areas ensures that services meet a basic level of quality across the entire state. The state, however, uses local property values as a guide for determining what parts of the state need aid. So, when a region experiences property value growth- such as the northern forested region in the 1990s- it can also expect to see a relative decline in state aid. Declining student populations further ensures that many northern areas see a smaller share of total state aid.

Given declining state aids, local governments (schools, cities, counties, etc.) in northern are forced to rely more heavily on the local property tax. This serves to exacerbate the shift in taxes within the county- now the total local tax bill is growing, and those with high valued properties are paying a larger and larger share of this growing bill.

Is there a way out of this virtuous cycle? Not really. The dual forces of the land market and the property tax are fairly ingrained in American society. Nonetheless, there are ways to reduce the blow, especially for those property owners who are hardest hit--elderly and low-income households. The state offers a program that allows such households to use a portion of the growing value of their property to pay their property tax bill. This amount is effectively borrowed against the capital gain that will occur when the house changes hands. In addition, there is a growing business in "reverse equity mortgages", which are similar to the state's program, but can provide money for just about anything that the homeowner wishes to spend it on. These programs can ease the burden for those lakeshore owners who suffer from the windfall property value growth.

To find out more about Wisconsin's property tax deferral program, contact Wisconsin Housing and Economic Development Authority at 1-800-755-7835. The AARP web page has a great resource for learning more about reverse home equity mortgages. Their web page can be accessed at http://www.aarp.org/revmort/

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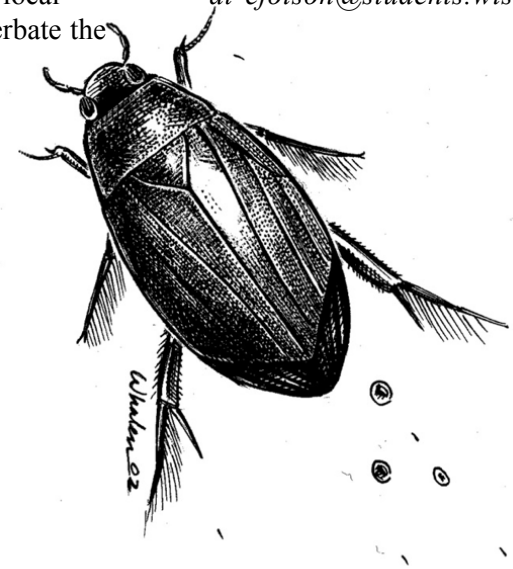
The state uses local property values as a guide for determining what parts of the state need aid.



The Advisory Task Force on Invasive Species
A Progress Report

The Task Force was asked to develop a statewide control plan to combat the induction and spread of invasive species.

Lt. Governor Margaret Farrow discussed the work of the Advisory Task Force on Invasive Species at the 2001 Wisconsin Lakes Convention in Green bay. The following is a summary of the mission and recommendations of the Task Force.

The essence of the problem of nonindigenous species is that as human beings around the world interact through travel and trade, they move plants and animals from their natural homes to new locations. Recent additions to the Great Lakes have come from European ports via the ballast water of commercial ships. Nonindigenous species can also be transported by aircraft or across borders on automobiles.

Purple Loosestrife: The quintessential invasive.

Another point to consider is that not all invaders are harmful. In fact, many are purposely introduced. Historically, early settlers brought plants and animals from home to make them feel more comfortable on the new frontier. English sparrows and German carp are examples of too much of a good thing. Plants have been introduced to beautify our homes and offices. Most introduced plants stayed in the gardens, but some like honeysuckle and purple loosestrife have escaped and reproduced in the wild in abundance, causing significant alterations of native plant communities and the related wildlife species.

In May 2001, Governor McCallum requested the creation of an Advisory Task Force on Invasive Species to be chaired by Lieutenant Governor Margaret Farrow and State Representative Daniel Vrakas.

The Governor gave the Task Force the responsibility of evaluating the severity of the induction and spread of invasive species in Wisconsin. The Task Force was also asked to develop a statewide control plan to combat the induction and spread of invasive species as well as identify and obtain federal funding to be used in the implementation of the statewide plan.

To meet its charge, the Task Force on Invasive Species reviewed the nature of the problem and costs to Wisconsin, as well as management efforts under way at the federal level, in Wisconsin, in other states, and by local government and non profit organizations. Based upon this review, the Task Force arrived at a set of recommendations.

The Task Force issued recommendations based on three major observations:

1. The movement of invasive plants and animals around the world is a growing problem that is both economically and ecologically detrimental to Wisconsin.
2. The breadth of the current problems and future prospects call for Wisconsin to organize state government's actions in order to consolidate and therefore improve coordination of exotic species management actions.
3. Wisconsin must coordinate its policies and program with adjacent states, federal agencies and with the federal and provincial governments of Canada.

Finally, the Task Force recognized that Wisconsin must work in concert with its neighbors and the federal efforts under way. Political boundaries have no meaning to invasive species yet consistency in addressing the issue is extremely important. Wisconsin should take full advantage of federal resources as well as the experience of other states.

Some of the Task Force recommendations are as follows:

A. The Task Force recommends the statutory creation of a Statewide Invasive Species Program to combat the introduction and spread of invasive species. Specifically, the program would:

· Create and implement a statewide management plan, which would include a watercraft inspection program to educate boaters about the spread of invasive species and enforce related laws.

· Coordinate all state invasive species efforts and conduct a public education campaign.

· Seek public and private funding to achieve program goals.

· Develop cooperation and coordinate activities with federal, regional and state agencies, the academic community, local governments, and private entities and encourage research relating to the prevention, elimination, and/or control of detrimental, invasive species populations.

B. The Task Force recommends the creation of an Invasive Species Council to oversee the state program and to help communicate and coordinate activities among agencies.

C. The Task Force recommends the creation of a director of the program and one full-time staff position, which would be placed within DNR and funded with existing funds which might include the $300,000 designated in FY 2002-2003 for invasive species management if there are no other sources of funds available. The Director shall work with the Council to carryout the statewide management plan with the assistance of the appropriate inter-agency staff. The director shall be the State of Wisconsin's point-person on invasive species.

D. The Task Force recommends that the statewide program work with international, federal, regional and provincial entities, and Great Lakes states to develop and implement effective international, federal and regional ballast water regulations and communicate these efforts to the council.

Certain Task Force recommendations are in the current budget adjustment bill. For additional details on the Advisory Task Force on Invasive Species go to http://www.ltgov.state.wi.us/

*Wisconsin is moving to meet the needs addressed by the Task Force and has hired **Brock Woods**, UW Extension and WDNR to lead the Purple Loosestrife Bio-Control Program (using beetles to remove the plant). Reach Brock at 608-221-6349 or woodsb@dnr.state.wi.us **Amanda Burk** has also been hired to coordinate, develop and deliver a state wide aquatic invasive species education strategy in a new position working with UW Extension, WDNR and Sea Grant as an Aquatic Invasives Species Program Coordinator. Amanda will start her job on June 1st, 2002.*

C A L E N D A R

June 12, 2002 – Vilas County Lake Association Picnic, Program and Annual Meeting at Trees for Tomorrow in Eagle River, 4:30-8:00 p.m. For more information, contact Tiffany Lyden at 715-479-3648.

June 28, 2002 - The 4th Annual Northwest Lakes Leadership Conference, Marvin M. Schwan Retreat and Conference Center. See http://www.bclf.freewebspace.com or contact Sybil Brakken, NW Lakes Leadership Conference Coordinator, at NWLLC@hotmail.com or 715/798-3163.

June 30 - July 7, 2002 - Celebrate National Lakes Appreciation Week.

October 21-22, 2002 - Waters of Wisconsin Forum. Monona Terrace Convention Center, Madison. For more information, contact Amanda Okopski at aokopski@facstaff.wisc.edu.

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Reflections

Now I see the secret of making of the best persons. It is to grow in the open air, and to eat and sleep with the earth.

-Walt Whitman,
Leaves of Grass