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LakeLines

Burnett County Lakes & Rivers Association
University of Wisconsin-Extension/Burnett County

The State Budget (Act 55) Rolls Back Shoreland Zoning

By Wisconsin Lakes (a statewide non-profit dedicated to conserving lakes)

The Wisconsin Legislature and Governor Walker rolled back decades of shoreland zoning by making wholesale changes to shoreland zoning law in the state budget. A package of changes inserted into the budget well after the point of public comment stripped counties of the ability to enact or enforce shoreland zoning provision stricter than the state minimums, weakened regulation of the repair or reconstruction of non-conforming structures, and more.

Changes to shoreland zoning in the 2015-17 Wisconsin State Budget include:

1. **Counties no longer allowed to exceed state shoreland zoning standards:** Before this change in law, counties were required to enact a shoreland zoning ordinance that at least met the minimum shoreland zoning standards (as set by DNR in NR115), but had the option of going beyond those standards. This option was used by a number of counties, including those that adopted a system of "lake classification" (Burnett County), in which lakes were assigned to different classes, each of which had a different set of shoreland zoning standards.
2. **Limits on vegetative buffer requirements:** Under the new law, county shoreland zoning ordinances cannot:
   a. Require the establishment of a vegetative buffer zone on previously developed land, or
   b. Require the expansion of an existing vegetative buffer zone.
3. **Non-conforming structures:** The statute limits the state from enacting standards or counties from enacting shoreland zoning provisions on several matters regarding non-conforming structures.
4. **No approval, fee, or mitigation for reconstruction:** An approval process, a fee, and a mitigation requirement would no longer be allowed for a landowner to conduct maintenance, repair, replace, restore, rebuild, or remodel a non-conforming structure, so long as the work does not expand the footprint of the non-conforming structure.
5. **No approval, fee, or mitigation for vertical expansion:** Non-conforming structures may be expanded vertically without requirement for approval, fee, or mitigation up to 35 feet above grade level.
6. **Vertical or lateral expansion standards:** The law says that the state can enact standards, or counties can enact ordinances, that allow for vertical or lateral expansion of a non-conforming structure, so long as they do not conflict with shoreland zoning standards established by the DNR. Currently, the NR115 standard related to height prohibits a county from approving any construction "that results in a structure taller than 35 feet within 75 feet of the ordinary high water mark of any navigable waters."

Other items:

1. **Definition of "structure":** The term "structure" is now defined in the shoreland zoning statute as "a principal structure or any accessory structure including a garage, shed, boathouse, sidewalk, walkway, patio, deck, retaining wall, porch, or fire pit.
2. **No restriction on outdoor lighting:** No standard or ordinance can "Require any approval to install or maintain outdoor lighting in shorelands.
3. **No review of property upon sale or transfer**: No standard or ordinance may require inspection or upgrade of a structure before the sale or other transfer of the structure may be made.
4. **Limitations of what is considered an "impervious surface":** Counties are no longer allowed to count as impervious surfaces the areas that are used to drain water into a infiltration area.
5. **No DNR appeal of a variance decision**: DNR may not appeal a decision of the county board of adjustment to grant or deny a variance under shoreland zoning.

Message from the President

By Roger Noe, BCLRA

Burnett County Lakes and Rivers Association

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Not so many years ago Burnett County Lakes and Rivers Inc. purchased several copies of a children's book *The Magic Goggles*. *The Magic Goggles* was distributed to all member lake associations in Burnett County. *The Magic Goggles* was centered around two sets of goggles which were passed down from grandparents to their grandchildren with a note attached. The note explained to the children that the goggles possessed "magic powers" and if worn while swimming they would discover the secrets that lie beneath the lake's surface. That brings us to Burnett County and those of us who live, work and play here. Maybe we should begin to look through our own magic goggles and concern ourselves with the issues that plague our waters:

1. AIS – Aquatic Invasive Species – are you up to date and aware of AIS as it pertains to your lake or river? There are lakes in Wisconsin that have been destroyed by invasive species. Get educated about AIS and its impact on lakes and streams.
2. Shoreline Restoration – look around your lake – is the shoreline in a natural state? How are lake shore owners living in harmony with the lake? Are you up to date with Act 55 in Wisconsin which has great potential to destroy lake shorelines in Wisconsin? Read about it.
3. Power boats and jet skies – are they getting smaller on your lake? Probably not. Are they following safe boating rules? If not what are you doing about it?
4. Children – what have you done to educate your children/grandchildren about the lake – its structure and lake life issues?. What a valuable resource our children can be.
5. Volunteering – have you done your part to work for your lake to make it better? The resources of Burnett County Government and the Wisconsin DNR continue to be reduced, stretching the workforce beyond its capacity. Volunteer and do your part.

Put on your "magic goggles", roll up your sleeves and help your lake/river maintain the secrets beneath the surface

Swimmer's Itch

***Previously published in* Lake Tides**

Ahh! Nothing better than a cool swim on a sweltering summer day. A few hours later, as I bask in the afterglow of my swim, I scratch a little itch on my leg... then another, then one on my arm... more itching on my legs and back. Next thing I know, dime-sized red welts start popping up all over. I don't believe it! DANG! I've got swimmer's itch!

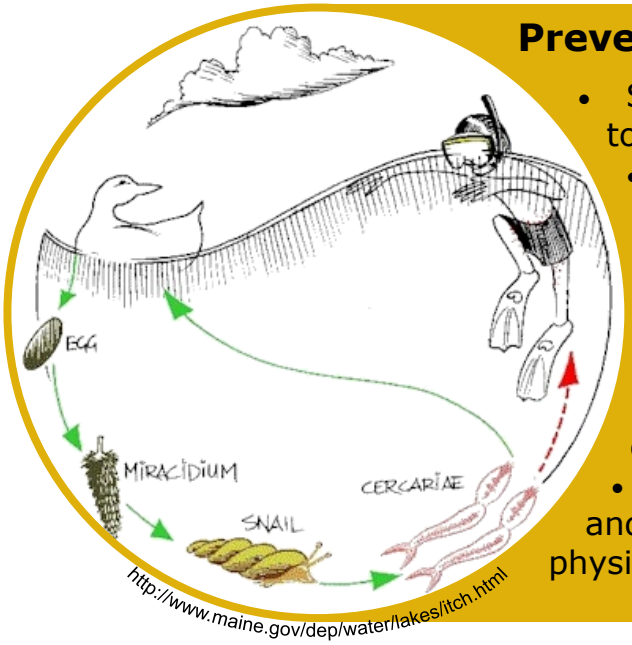
Technically known as schistosome dermatitis, swimmer's itch appears as red itching, bite-like welts within several hours of leaving the water. The irritation can last from two days to several weeks, depending on the individual's susceptibility. Preventive measures can be taken, and there are no permanent effects from swimmer's itch.

There seem to be no special characteristics of lakes having the problem. Some of the finest recreational waters in the state, including Lake Superior, experience swimmer's itch annually, whereas other lakes may have an occasional outbreak or none at all. An outbreak may be severe, but last for only a few days, or can be minor and last much of the season.

The irritation is caused during a life stage of a flatworm parasite (Schistosome) which lives as an adult in suitable mammals and birds, such as mice and ducks. The adult worm sheds its eggs via the host's excretory tract into the water. Here they hatch into a free-swimming stage called a "miracidium." The miracidium swim in search of a proper second host animal, a particular type of snail. If a proper snail is found, the miracidium will penetrate into the snail's tissue and undergo further development. After a three or four week development period, another free-swimming stage called a "cercaria" emerges from the snail in search of the proper primary bird or mammal host. The cercariae release normally occurs when the water temperatures reach their near maximum summer temperature.

Various soothing lotions or ointments may be applied to relieve the itching. For severe cases, prescription antihistamines and topical steroid creams may be prescribed by a physician. There is no effective way for people to eliminate swimmer's itch on their beach. Feeding of ducks should be discouraged if swimmer's itch is known to be a problem on the lake, since waterfowl are an important adult host to the parasite.

Here in Wisconsin, it's best to regard swimmer's itch in the same manner as mosquitos, wood ticks and deerflies; there really is nothing that can be done to eliminate them, and our best action is to learn how to reduce exposure. Overall they shouldn't discourage us from enjoying the many outdoor activities we can experience when we venture into their outdoor habitat.



Preventive Measures to Reduce Exposure:

- Swim rather than play or wade in shallow water to reduce exposure.
- Towel vigorously immediately after leaving the water to crush the cercariae before they can penetrate the skin.
- Some sunscreens and lotions may reduce the infections; however, nothing is known to be completely effective. Once the irritation has developed, various soothing lotions or ointments may be applied to relieve the itching.
- For severe cases, prescription antihistamines and topical steroid creams may be prescribed by a physician.

Chinese Mystery Snail - Fast Facts

By Wisconsin Department of Natural Resources

ORIGIN

- The Chinese Mystery Snail is also known as the Chinese Apple Snail, Rice Snail, and Japanese Trapdoor Snail.
- This snail is native to Burma, Thailand, South Vietnam, China, Korea, Japan, the Philippines, and Java.
- Originally introduced as a food source and later distributed through the aquarium market.

SHELL DESCIPTION

- Shell cone shaped spiral with rather round (globose) overall shape.
- Shell upwards of 60mm, or two and one quarter inches in length.
- Shell color is uniform, light to dark olive-green, without any color bands.
- In some individuals, older lip reflections appear as fairly strong axial ridges.
- Shell smooth and thin but quite strong with very fine growth rings.
- Outer lip (aperture) either round or slightly oval with typical black inner band.
- Shells can have 6 to 7 whorls. The whorls are tightly wound in a strong, convex shape and each suture is very indented creating a slight shoulder.
- Operculum present.
- Horn colored, flat, thin, with concentric growth lines around a center spot located nearer the outer lip.

HABITAT

Chinese Mystery Snails prefer ponds and slow-moving streams with some vegetation and a muddy substrate. They will stay partially buried in the mud where the water is quiet. They eat as both grazers and detritivores, consuming algae or fine particulate organic matter and the bacteria therein. They will eat plant matter, vegetables, fish food, frozen foods, and live foods. They can be baited with carrion. They also filter feed on suspended matter, competing with clams and mussels.

LIFE CYCLE

Chinese Mystery Snails are found in shallower portions of slow moving to stagnant waters, staying partially buried in the mud. Sexes are differentiated with definite male and female sexes. Females hold their young internally until ready for release. Females give birth to live, crawling young twice a year. There is no free-swimming larval stage. The young eat zooplankton and phytoplankton. Snails mature after one year and may live 3 to 5 years.

IMPACT

Chinese Mystery Snails compete with native species for food and space, which may result in the total devastation of a native species. Chinese Mystery Snails serve as a vector for various parasites and diseases as an intermediate host for parasitic helminth flukes such as *Echinocasmus elongatus, E. redioduplicatus, E. rugosus, Euparipbium ilocanurh, E. recurvatum, Echinostoma macrorchis,* and *E. cinetorchis,* which can infect human beings. It has also been suggested that unlike native snails, the Chinese Mystery Snail will not serve as a host to the cercaria which causes Swimmer's Itch.

Chinese Mystery Snails

Photo credit: Wikipedia

Responses to Shoreland Zoning Changes

Wisconsin Lakes (a statewide non-profit dedicated to conserving lakes)

The roll back of shoreland regulations was included in the state budget without public hearing. Wisconsin Lakes along with over 65 lake associations sent the following letter prior to final adoption of the budget.

To: Wisconsin Legislature's Joint Committee on Finance and other legislators

From: The Undersigned Lake & River Organizations of Wisconsin

We, the undersigned lake associations, lake districts, river organizations, and countywide lakes & rivers associations, along with Wisconsin Lakes, urge you to remove the changes to shoreland zoning encompassed in Budget Motion #520, paragraph 23.

A flexible system of shoreland zoning that requires all counties to adopt at least minimum standards set by the state, but that also allows counties to adopt standards stricter than those minimums if they deem it necessary, has protected Wisconsin's lakes for decades. The higher water quality that comes from requiring sensible shoreland development practices preserves recreational and tourism value, quality of life, and long-term property values. Most importantly, it gives counties the chance to manage their lakes in a way tailored to their particular waters.

Motion #520 would abandon that approach, stripping counties of their powers and upsetting countless years and dollars of planning and management for counties that have opted for stronger zoning regulations. Nearly 30 counties already passed stronger-than-the-minimum ordinances, and nearly 20 use a system of lake classification that allows them to manage different lake types with standards of appropriate strength for that class of lake. The counties that manage through a lake classification system account for 80% of the lakes in the state.

In addition, for many lakes uncontrolled development can mean a decline in property value as runoff creates lower water quality. According to a study in Maine, a decline in water quality could result in a 10-20% decline in the selling price of a lakefront lot. Do we really want to risk a family's investment in this way, when the system we have in place works so well?

Finally, this system has been in place for nearly four decades, has demonstrated success, and is popular among groups such as ours. It seems reasonable to expect that an attempt to change such a system would go through the normal legislative process and provide room for public input, rather than being slipped into the budget as a non-fiscal policy item.

The current flexible system of shoreland zoning in the counties accounts for the fact that all lakes are not the same, and all counties are not the same. Please don't take away our ability to manage the lakes we call home, for now and for a safe and healthy lake experience to pass to our children and grandchildren.

Please reverse the changes to shoreland zoning contained in budget motion #520, paragraph 23.

We thank you for considering this matter of such importance to our organizations, our lakes, and our families.

The County of Burnett, along with numerous other counties, has adopted a resolution opposing the changes included in the state budget. The resolution that was sent to the Joint Finance Committee, Governor, State Senators and Representatives asks that the shoreland zoning sections of Act 55 be repealed and that any changes to shoreland rules be discussed through normal legislative processes instead of the state budget process.

Counties with Lake Classification Systems:

1. Ashland
2. Barron
3. Bayfield
4. Burnett
5. Douglas
6. Forest
7. Iron
8. Lincoln
9. Langlade
10. Marinette
11. Polk
12. Oneida
13. Sawyer
14. Vilas
15. Washburn
16. Waupaca
17. Washington

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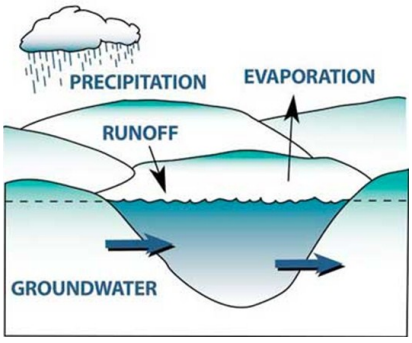
Lake Types: How Does Water Get Into Your Lake?

By Wisconsin Lakes (a statewide non-profit dedicated to conserving lakes)

Water can enter lakes from a variety of sources including groundwater, runoff from the watershed, surface waters (like streams and rivers) flowing into the lake, and direct precipitation into the lake. Water leaves lakes through groundwater or surface water flow and evaporation.

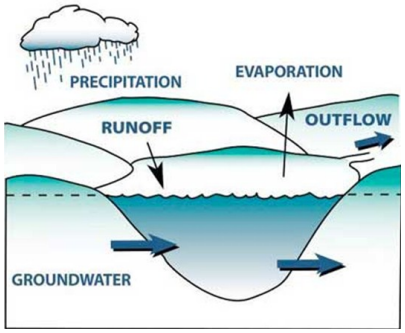
Lakes can be classified into five main lake types based on how water enters and exits the lake. For some lakes, all or most of their water enters the lake through one source (such as groundwater), other lakes may receive water through several sources. The water quality of a lake and species of fish present are significantly influenced by the lake type.

Seepage Lakes. These lakes do not have an inlet or an outlet, and only occasionally overflow. As landlocked water bodies, the principal source of water is precipitation or runoff, supplemented by groundwater from the immediate drainage area. Since seepage lakes commonly reflect groundwater levels and rainfall patterns, water levels may fluctuate seasonally. Seepage lakes are the most common lake type in Wisconsin.



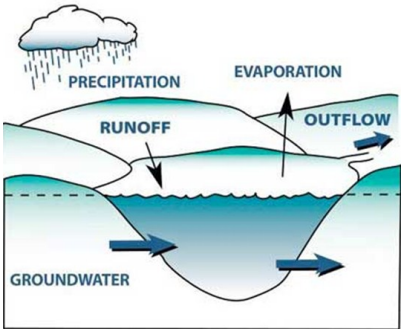
Seepage lakes frequently have a less diverse fishery because they are not influenced by streams. Seepage lakes also have a smaller drainage area, which may help to account for lower nutrient levels

Spring Lakes. These lakes have no inlet, but do have an outlet. The primary source of water for spring lakes is groundwater flowing into the bottom of the lake from inside and outside the immediate surface drainage area. Spring lakes are the headwaters of many streams and are a fairly common type of lake in northern Wisconsin.



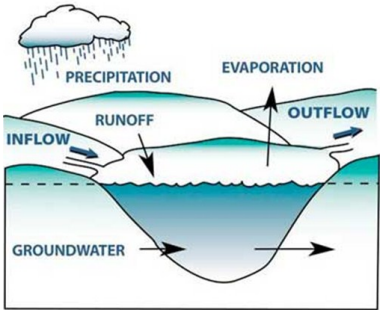
Groundwater Drained Lakes. These lakes have no inlet, but like spring lakes, have a continuously flowing outlet.

Drained lakes are not groundwater-fed. Their primary source of water is from precipitation and direct drainage from the surrounding land.



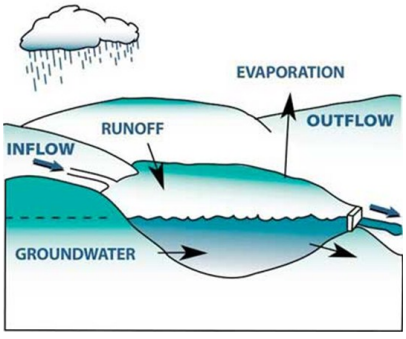
Frequently, the water levels in drained lakes will fluctuate depending on the supply of water. Under severe conditions, the outlets from drained lakes may become intermittent. Drained lakes are the least common lake type found in Wisconsin.

Drainage Lakes. These lakes have both an inlet and outlet where the main water source is stream drainage. Most major rivers in Wisconsin have drainage lakes along their course. Drainage lakes support fish populations which are not necessarily identical to the streams connected to them. Drainage lakes usually have higher nutrient levels than many natural seepage or spring lakes.



Impoundments. Artificial lakes are human-made bodies of water referred to as impoundments. A lake is considered an impoundment if one-half or more of its maximum depth results from a dam or other type of control structure. An impoundment is considered a drainage lake since it has an inlet and outlet with its principal water source coming from stream drainage.

Impoundments may support fish populations which are not necessarily identical to the streams connected to them. Impoundments usually have higher nutrient levels than many natural seepage or spring lakes.



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Improving Your Lakeshore and Protecting Your Lake

By John Haack, UW-Extension

Now is a great time to "think spring" and begin planning for next year's projects at the lake. Here are few tips to get you thinking about things you can do to protect your lake and your lake shore property.

1. **If you have a lawn- keep it healthy.** A healthy lawn on the upland areas can help hold soil in place. Do not use phosphorus fertilizers on your lawn areas. On most Wisconsin lakes plant and algae growth are limited by the amount of phosphorus in the water. So less phosphorus is a good thing for water quality. If you have questions about your lawn - get a soil test and check out the publications on lawns on-line at UW-Extension's "The Learning Store."

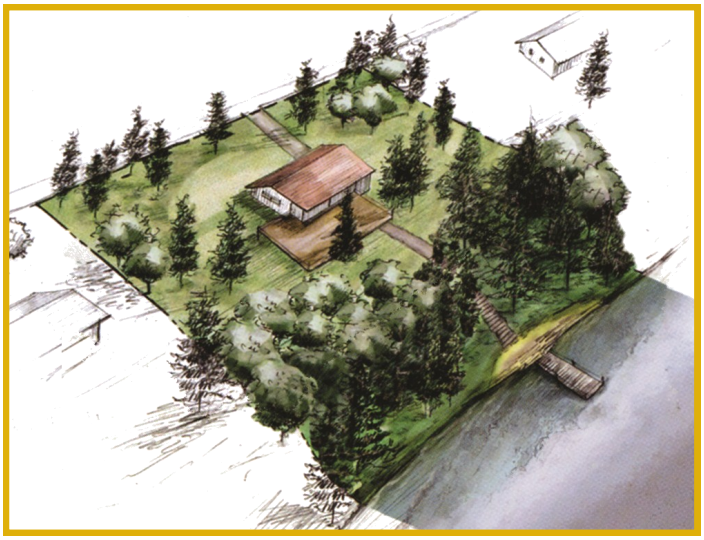
2. **Get your septic system pumped and inspected.** Phosphorus and other nutrients are water soluble - good septic maintenance can help reduce the amount of nutrients reaching your lake. Nutrients like phosphorus are a special concern on seepage type lakes (*groundwater fed lakes with no inlet or outlet).*

3. **Stabilize eroding soil**s. Divert flowing water into natural vegetation to slow or infiltrate the water, then seed and mulch those eroding areas to get them vegetated quickly - cool spring weather is a good time to do this work. If your problem is a tough one-call the Burnett County Land and Water Conservation Department for assistance at 715-349-2186.

4. **If a tree falls in the water let it be.** Trees in the water provides great habitat for fish and wildlife. Tree drops, sometimes called "fish sticks" can be a great addition for shore fishing or wildlife viewing. If you're interested in "fish sticks" contact the DNR for a permit or the Burnett County Land and Water Conservation Department for more information and to learn if your site is a good fit for "fish sticks".

5. **Build a rain garden.** Rain gardens are an attractive and effective way to deal with erosion caused by too much water flowing off roofs, driveways and patio areas. A rain garden simply collects water from surfaces and allows the water to slowly filter into the ground rather than running off into lakes. In many areas across Wisconsin, rain gardens are used to enhance water quality, help eliminate erosion problems, and provide wildlife habitat.

6. **Grow a more natural shoreline.** In some cases just mowing less along the shore will allow more native plants and trees to flourish. You can speed up that natural restoration process by planting native trees and shrubs. Keep it simple and start with a small area and see how it grows on you. Consider planting a few native shrubs for wildlife. For ideas of what to plant check out the "Top Ten Native Plants for Wildlife" brochure at burnettcounty.com/NaturalShoreline or contact the Burnett County Land and Water Conservation Department for a copy.



An example of lakeshore designed to protect water quality and provide wildlife habitat.

For fact sheets on installing the various practices mentioned above, go to UW-Stevens Point Healthy Lakes Implementation Plan webpage at www.uwsp.edu/cnr-ap/UWEXLakes/Pages/healthylakes/default.aspx**,** then take a look at the fact sheets provided on each practice. For detailed information on shoreland restoration options, go to Minnesota's Restore Your Shore webpage at www.dnr.state.mn.us/restoreyourshore/index.html.

Healthy shorelands provide some of the most effective protection for Wisconsin's lakes and streams.

Understanding the Benefits of Trees in Lakes

By Michael A. Bozek, formerly with the Wisconsin Cooperative Fishery Research Unit

Shoreland Development and Trees

Over time, humans have altered riparian areas of lakes at rapid rates across a large portion of the landscape: first, by logging, and more recently, by lakeshore development. In the Upper Midwest, forest stands in previously logged areas have more or less recovered and now sustain healthy second-growth forests. In contrast, many riparian owners along developed lakes have removed some or all of the trees from their lakefront property and the water. Where landowners continue to remove new understory trees and seedlings, they prevent recovery of shoreline areas to their natural state. The rate and pattern in which trees fall in a lake depend on the stand of trees in the riparian area.

Why is This Important?

Fish use submerged trees in a variety of ways. Many species spawn on, adjacent to, or under trees. The trees provide cover helping some species protect their incubating brood. For example, smallmouth and largemouth bass preferentially build spawning nests near submerged trees, particularly large logs, while rock bass place them next to or under logs. Because male bass and sunfish defend their eggs and young in nests, placing nests adjacent to or under submerged trees reduces the nest perimeter that they need to defend against predators.

Fathead minnows, an important food item of larger fish and fish-eating shorebirds, spawn on the underside of wood in cavities. The young of many species of fish often disperse throughout the branches for protection, while predators, such as northern pike, muskellunge and largemouth bass use the same trees for ambush foraging. Shade from branches and the bole provides daytime refuge for diurnal low-light species such as walleye. Use of trees can be species-, age-, and season-dependent, and trees provide many diverse habitats that attract fish for different reasons.

Current research has found that the association between fish and trees is clearly related to the complexity of branches and the location and position of the tree in water. More fish and more different species of fish use trees that have more complex branching. Large, individual, complex trees can host entire fish communities.

How Can You Help?

Following are six simple steps that you can take to maintain the benefits of trees near water.

1. Leave trees that fall in the water alone.
2. Do not cut branches that are in the water to create pockets for easier fishing.
3. Do not cut branches of trees that stick out above the water, even during winter as fuel for ice fishing. These branches will become valuable habitat as the tree settles further into the lake.
4. Leave natural trees, seedlings and saplings along lakeshores intact and allow them to mature.
5. Where trees have been removed along shorelines, and in particular, where understory trees, seedlings and saplings are gone, plant trees and shrubs, which will become fish habitat for future generations. Partial shoreline restoration is better than none.
6. Learn to appreciate more natural shorelines rather than highly manicured sites, and encourage others to do the same.

Type of Lake and Shoreline	Logs Found per Mile of Shoreline
Undeveloped lakes	893
Undeveloped shorelines of developed lakes	601
Shorelines where houses have been built	93

Odds and Ends

BCLRA donated $500 to Burnett County Land and Water Conservation Department for the funding of an intern to help fight aquatic invasive species.

From left: Roger Noe, Paul Kipping, Brad Krause, Dave Ferris, Buck Gooding, and Susan Wallin

Lake Leaders Crew 11 Taking Applications - The Lake Leaders Institute assists citizens in developing and enhancing both their technical and people skills, to enrich their communities and the waters within them. Participants learn in an atmosphere of openness, trust, friendship, and camaraderie. There are three seminars, each lasting two days. They are typically held during May, September and October at retreat type centers around the state with the opportunity to take field trips, enjoy natural beauty, exchange ideas, and develop friendships.

Seminar I, Society and Environment: Philosophy and Ethics of Lake Management.
Seminar II, Aquatic Ecology and Watershed Management: Impact of Development on Lakes.
Seminar III, Organizations, People, Politics.

For more information contact: uwexlakes@uwsp.edu. A BCLRA scholarship may be available. Contact a board member for more information.

Wisconsin Lakes Partnership Convention (March 30th – April 1, 2016) - The Wisconsin Lakes Partnership is teaming up with the Water Action Volunteers (WAV) and the Wisconsin Citizen-based Monitoring Network for the 2016 Wisconsin Lakes Partnership Convention in Stevens Point. This coming year marks the 30th anniversary of Wisconsin's Citizen Lake Monitoring Network (CLMN) and the 20th anniversary of WAV, so we have put together a diverse program that highlights the tremendous work volunteers have been carrying out in their work with state and local partners. For more information, visit www.uwsp.edu/cnr-ap/UWEXLakes/Pages/programs/convention/default.aspx.

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Celebrating 20 Years 1995-2015

In This Issue

LakeLines is now featured online at www.burnettcounty.com/LakeLines