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# DEVIN LEMAHIEU

## STATE SENATOR

DATE: January 19, 2016  
RE: **Testimony on 2015 Senate Bill 477**  
TO: The Senate Committee on Natural Resources and Energy  
FROM: Senator Devin LeMahieu

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Mr. Chairman and committee members, thank you for taking time today to discuss Senate Bill 477 regarding the restrictions in a county shoreland zoning ordinance on activities within the shoreland setback area.

SB 477 codifies into law current DNR shoreland zoning standards that require a setback of 75 feet from the ordinary high-water mark (OHWM) to the nearest part of a building or structure while providing counties with flexibility in cases where an existing development pattern exists. Under this bill, when there is an existing development pattern, counties can establish a median average setback that may exceed the 75-foot standard. The same standards would also apply inversely with a minimum setback of 35 feet. In the absence of a development pattern the customary setback of 75 feet would apply.

This bill also codifies into law current DNR shoreland zoning standards that exempt from the general setback requirements the construction of boat houses located completely above the OHWM. In addition SB 477 specifics that a non-conforming structure located within the 75-foot setback can be rebuilt or repaired providing the structure remains inside the original three dimensional footprint.

I encourage you to vote yes to SB 477 to add flexibility and clarity to shoreland zoning ordinances. Thank you for your consideration.



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# ADAM JARCHOW

STATE REPRESENTATIVE • 28<sup>TH</sup> ASSEMBLY DISTRICT

## **Testimony on AB 603/SB 477**

Senate Committee on Natural Resources and Energy

Public Hearing: Tuesday, January 19, 2016

State Capitol – 411 South

At the request of the Wisconsin Counties Association, we are introducing this bill to clarify certain provisions of Wisconsin's shoreland zoning program. Today, we bring before you a bill that does four things in relation to shoreland zoning.

The first provision relates to setback averaging. This would give counties the opportunity to require greater setbacks when there is an existing development pattern along a shoreline because of prior setback requirements. NR 115 will continue to be the law regarding setbacks from the originally high water mark (OHWM). In addition, it codifies current law that if principal structures exist on adjacent lots within 250 feet of a proposed principal structure in both directions along a shoreline, the setback may be the average of the setbacks on each adjacent lot. That setback may be no less than 35 feet.

This bill clarifies that certain structures listed as exempt structures in NR 115 are still exempt structures.

It allows a county to be able to limit dry boathouse repair and replacement within the original three dimensional envelope as opposed to the footprint.

Finally, this bill clarifies and provides counties with other options to calculate impervious surfaces. DNR shoreland zoning standards must prohibit a roadway or sidewalk from being considered an impervious surface.



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## Testimony on SB 477

Thank you Chairman Cowles and committee members for hearing this bill today. I would also like to thank Representative Jarchow for working hard and introducing this important bill. As the representative said, this bill would make essential clarifications to the state's shoreland zoning regulations.

Most importantly, these clarifications would ensure that local governments have greater discretion in matters pertaining to shoreland zoning. As Representative Jarchow mentioned in detail, SB 477 would give counties more flexibility in establishing setback areas by acknowledging existing development patterns for homes along the shoreline.

This bill would add clarity for counties and property owners alike. After all, lake home owners deserve to have certainty in knowing that local and state zoning laws will respect their property rights, and SB 477 accomplishes just that.



Senate Committee on Natural Resources and Energy  
Senate Bill 477

January 19, 2016

Thank you Chairman Cowles and Committee members for the opportunity to testify for information today regarding Senate Bill 477 relating to county shoreland zoning ordinance and activities within the shoreland setback. My name is Pam Biersach and I am the director of the Watershed Management Bureau at the Wisconsin Department of Natural Resources.

The Shoreland Management Program is a partnership between state and local government that requires development near navigable lakes and streams to meet statewide minimum standards. The shoreland zoning standards balance private property rights with the protection of water resource values: water quality, recreation and navigation, fish and wildlife habitat, and natural scenic beauty along navigable lakes and rivers by establishing statewide minimum standards including lot sizes, building setbacks from the water's edge, and limits on tree removal.

The shoreland standards within NR 115 administrative code, created in 1966, were set as the minimum requirement and allowed counties to be more restrictive. 2015 Act 55 amended the authority counties have in the development of a shoreland ordinance that is more restrictive than the shoreland zoning standards contained in NR 115.

The department appreciates the author's effort to bring statutory clarity and certainty from shoreland zoning rules in NR 115. AB 603 codifies into law some of the current shoreland zoning standards in NR 115 and also makes changes to and creates additional standards not currently regulated in NR 115.

Section 1 of SB 477: Current law s. 59.692(1k)(a)2 prohibits county shoreland zoning ordinances from prohibiting or regulating the maintenance, repair, replacement, restoration, rebuilding, or remodeling of nonconforming structures if the activity does not expand the structure's footprint. Additionally, an ordinance cannot require any approval, fee or mitigation for those activities.

SB 477 would extend the prohibition to include structures that are identified as exempt from meeting the required water setback. Section 5 of the bill says, "a county shoreland zoning ordinance may restrict these activities if the expansion is beyond the three-dimensional building envelope."

The department has questions that we have recently shared with the author regarding:

- County requirements and permits for new versus existing exempt structures
- The date, sizes and process to recognized, allow and calculate highly developed shorelines, respectively
- A uniform average setback when a county require a setback greater than 75'
- Calculation of reverse averaging when there are multiple structures within 200' of a proposed principal structure.

The department and is looking forward to working with Senator LeMahieu and Representative Jarchow on these questions.

Thank you again, Chairman Cowles, for the opportunity to testify. I'm happy to try answering any questions you may have.



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January 13, 2016

## SB 477 – Clean Lakes Alliance concerns and recommendations

### Summary:

- SB 477 goes further than Act 55 in removing local control in the following ways:
  1. **Setbacks.** Creates Sec. 59.692 (1n) (b) using the language “shall allow” rather than “may allow” in regards to setback averaging. Counties are best suited to make the choice of whether or not to require setback averaging within the setback based on their development patterns and preferences. Section (b) also appears to be inconsistent with section (c) in terms of returning any local control to counties.
  2. **Mitigation.** Creates 59.692 (1k) (a) 2m to add a list of structures [those exempt from prohibition of construction within the 75-ft setback, listed in (1n) (d)] for which mitigation can not be required when these structures are maintained, repaired, replaced, restored, rebuilt or remodeled, in keeping with the mitigation requirement changes made regarding nonconforming structures in Act 55. Mitigation is an important tool that counties need to retain to protect water quality, particularly in counties that are under TMDL requirements. Mitigation allows for sediment control (Total Suspended Solids, or TSS) and infiltration measures to prevent or reduce sediment loss and nutrient transport to waterways. To address specific water resource concerns, counties need to retain their oversight capacity to grant approval and require reasonable mitigation for nonconforming and other structures.
- SB 477 also has the opportunity to restore local control removed in Act 55 by restoring control to counties in the area of whether or not they want to require **vegetative buffers**. A common-sense compromise would be to allow counties the option to require buffers, rather than require them to require buffers (pre-Act 55) or prohibit them from requiring buffers (Act 55). We would like to see 59.692 (1f) (a) amended to indicate that counties “may” require vegetative buffers.



# WISCONSIN LAKES

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## WISCONSIN LAKES TESTIMONY AGAINST SB477 TO SENATE COMMITTEE ON NATURAL RESOURCES AND ENERGY

Presented by Michael Engleson, Executive Director

January 19, 2016

Thank you for the opportunity to testify today in opposition to SB477.

My name is Michael Engleson, Executive Director of Wisconsin Lakes, a statewide non-profit conservation organization of waterfront property owners, businesses, lake associations, lake districts, and individuals who care about the health and safety of Wisconsin's over 15,000 inland lakes. We represent roughly 300 lake organizations, who in turn have over 80,000 members.

SB477, according to its author, is designed to be a compromise, a response to the many issues raised with Act 55's monumental changes to Wisconsin's legacy of protecting its surface waters through a flexible system of shoreland zoning standards administered by the counties.

The bill attempts to give a tiny bit of that flexibility back to the counties by changing the method they can use to determine setbacks, the distance from the water's edge in which new construction cannot occur without a variance or unless the construction is of a type in a limited list of accessory structures. Even though setbacks make up only one of seven standards in our shoreland zoning system, the author should be acknowledged for being willing to offer some restoration of county flexibility, and we hope that as time goes by and the unintended consequences and damage from Act 55 becomes even more clear, he and others will be willing to consider other changes.

Unfortunately, I'm here to tell you today that, as currently written, the net impact of the bill is to take more flexibility away from counties than it grants, and that it will likely result in more development closer to the shore than the other way around.

The easiest way to avoid that result and to change this bill so that it achieves its goal is to remove the mandate it places on counties to use "setback averaging" within the setback. Setback averaging is a concept that is included in NR115, the administrative code dealing with shoreland zoning. The code *allows but does require* counties to choose to use a smaller setback (i.e. closer to the water) for a property where the two adjacent properties already have principal structures within the setback (see fig. A).

SB477 makes what is a discretionary tool in NR115, a *mandated* action (Section 6, line 14 of the bill). According to a DNR report, in 2000, 9 counties chose not to use setback averaging. Those 9 counties represent just under a third of the lakes in Wisconsin. Removing the mandate to use setback averaging from the bill, essentially changing the "shall" to a "may", would go a long way to making this bill at least an incremental improvement over Act 55.

In addition to requiring counties to use setback averaging that currently are not using it, the bill would also arguably prevent counties from using an alternative method to establish setbacks called "setback reduction formula". This option allows for development on very small lots by using a formula to determine the building envelope by reducing the shoreland setback and roadway setback. Many of these lots would not be developable without this option, and to my understanding several counties currently use this formula.

Despite these added restrictions, the bill does provide for the use of setback averaging above the setback (farther away from the water), a new option designed to soften the loss of counties' pre-Act 55 ability to simply establish a deeper setback than NR115's 75' minimum. The bill helps some counties that had these larger pre-Act 55 setbacks by providing them the option to use setback averaging when adjacent properties are also more than 75' back from the water (see Fig. B). The efficacy of this section, however, is limited by several factors.

First, the section is rather confusingly worded, forcing counties to determine whether the adjacent properties were setback "more than 75 feet from the ordinary high water mark at the setback that was required at the time each structure was built". It is unclear how that provision would be interpreted from county to county or even what issue it is trying to solve, but it seems burdensome to require a county to research the setback standard in place for the adjacent structures when they were built every time there is new construction.

In addition, this "increased setback" section would apply to fewer properties than the more general mandatory section discussed previously. For the "increased setback", adjacent properties need to be within 200', while in the first section averaging would need to be used when properties were within 250'. The reason for the discrepancy is unclear.

Yet another limitation to this section is that setback averaging would not be an option on undeveloped lakes, or lightly developed lakes where the structures are widely spread out. In counties that previously used larger lot sizes than the state minimum, it is more likely than not that development is not in a pattern that would allow the use of the expanded setback averaging under this bill. And some lakes would see a patchwork of setbacks around the lake (see Fig. C). So, while this system would apply on some lakes in more highly developed areas that also had historically deeper setbacks, for many counties and many lakes this feature does nothing at all.

The combination of mandatory setback averaging within the setback and the limited application of setback averaging above the setback simply doesn't add up to a net positive benefit, even on the very limited scope of this one shoreland zoning standard. If, however, the use of averaging was made discretionary, the scales would tip in the other direction, albeit incrementally. If this happened, Wisconsin Lakes would be much more likely to see some value to passing this bill.

Still, even if the change is made from mandatory to discretionary averaging, problems remain. SB477 takes away oversight of repair, reconstruction and replacement of the kinds of accessory structures exempt from the setback rules, much as Act 55 did of non-conforming structures, limiting management of what is happening close to shorelines.

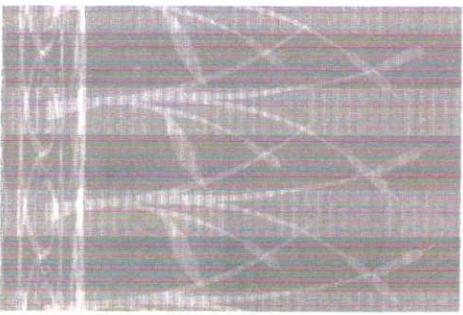
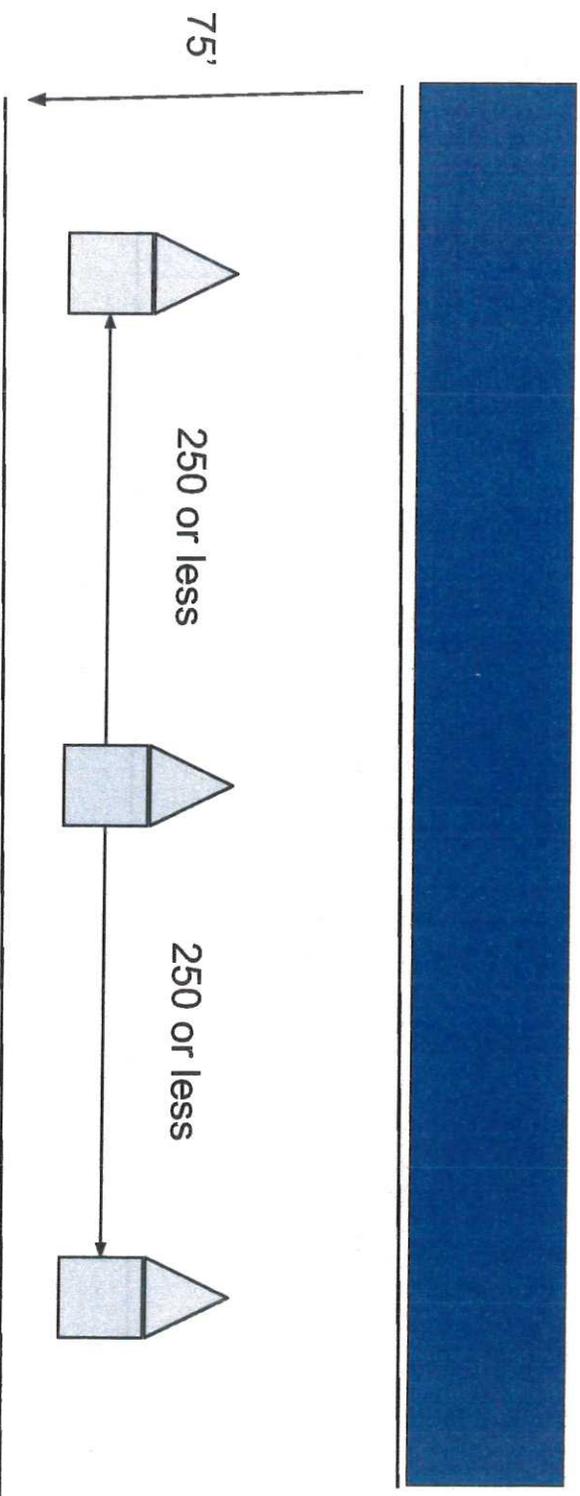
And most importantly, the bill codifies portions of NR115, including the setback standard of 75'. This conversion of administrative rule to statute is poor policy. The shoreland zoning standards in NR115 were arrived at through rigorous, hard work and compromise by numerous stakeholders, and were based on sound, science-based decision making. By moving the standards to the statutes, they become subject to the political whim of the moment. Think how easily, a setback standard of 75' could be changed to 50', or, for that matter, 150'. It could even happen with little notice, and no opportunity for public comment before any committee. After all, that's how Act 55's massive overhaul of decades of established law went down.

SB477 would be a minor incremental change for the better if setback averaging was discretionary both above *and* below the setback. But as written, it does little for lakes and rivers, and for counties as well.

SB477 doesn't move us back to where we need to be, back towards the smart system of shoreland protection we successfully employed for decades. It's what our lakes and rivers need, and what our members, hundreds of waterfront property owners, have demanded from the start. Our members understand that reasonable limitations that protect their lakes is the right thing because they keep their lakes healthy and their property values strong.

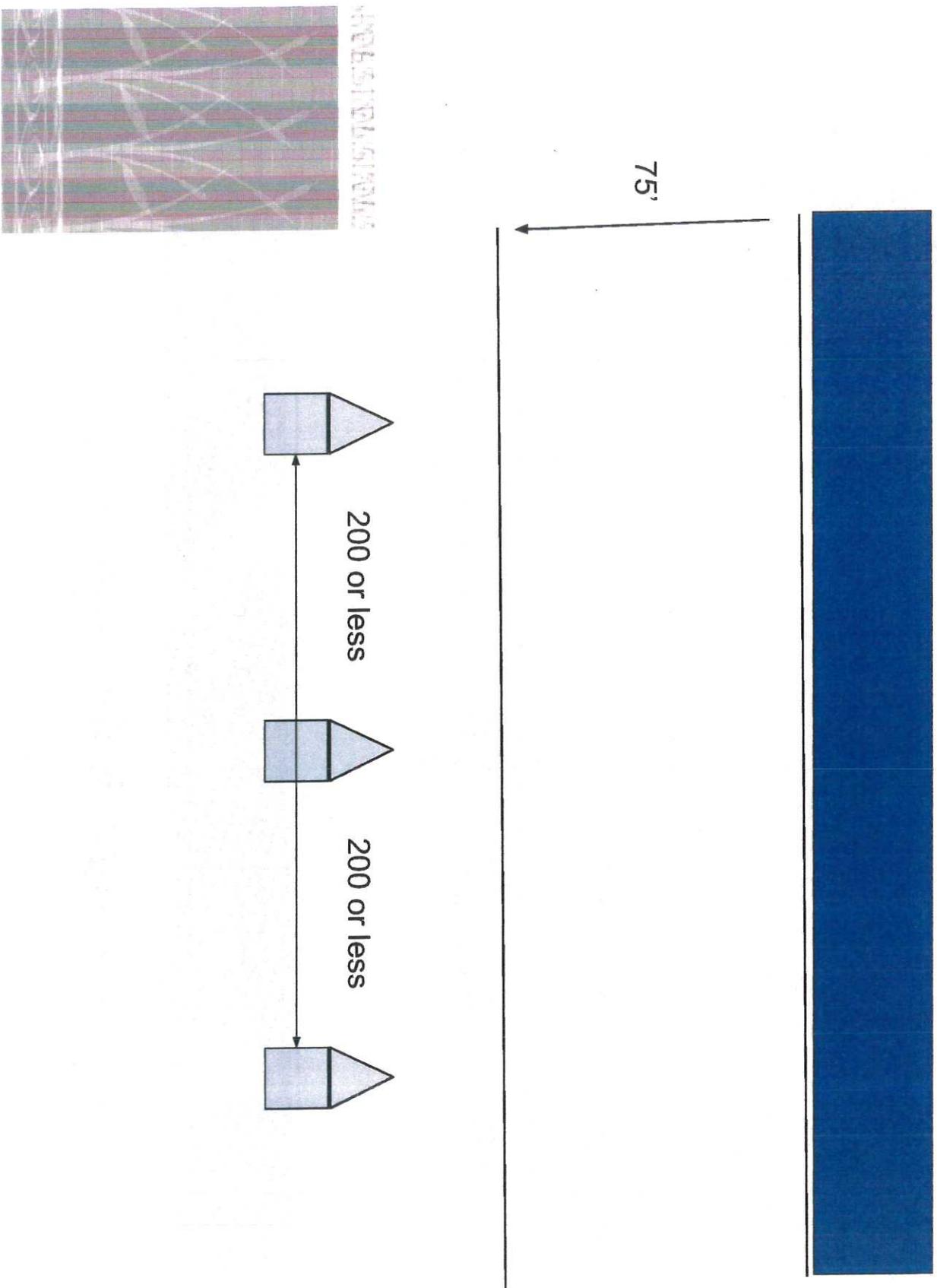
On behalf of the lake organizations and riparians that make up Wisconsin Lakes, I urge you to either amend this bill as suggested or reject it outright, and then continue through other bills to restore the protections we need for healthy, productive lakes and rivers.

**Fig A. Setback averaging within the setback**

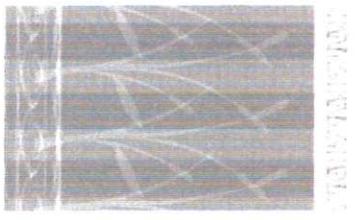
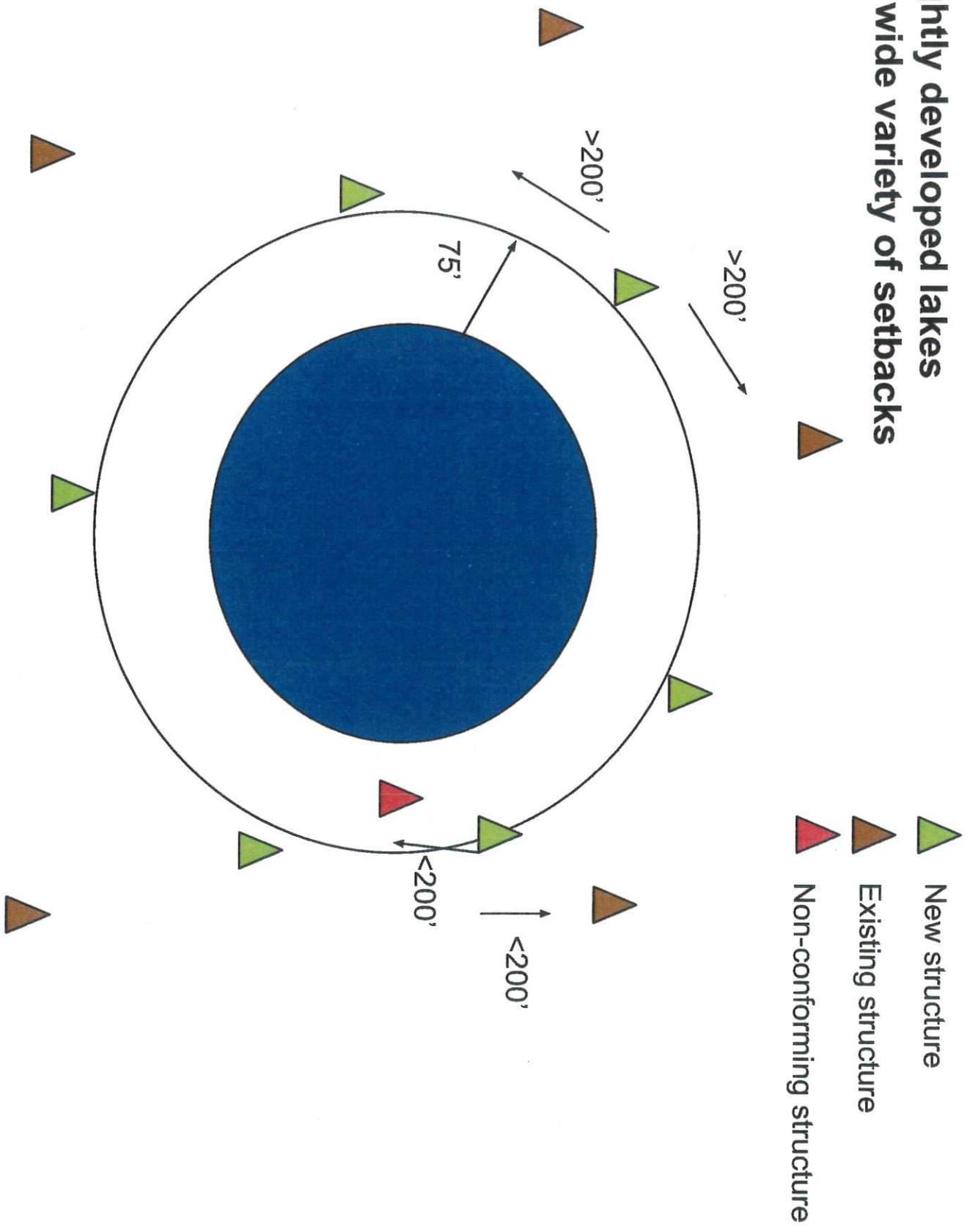


PHOTOGRAPHY

**Fig. B. Setback averaging outside the setback**



**Fig. C. Lightly developed lakes would see wide variety of setbacks**





## Waukesha County

### *Department of Parks and Land Use*

DATE: January 19, 2016  
TO: Senate Committee on Natural Resources and Energy  
FROM: Dale R. Shaver  
Director of Parks and Land Use  
SUBJECT: Support for Senate Bill 477

On behalf of Waukesha County, I submit this letter of support for Assembly Bill 603 relating to restrictions in a county shoreland zoning ordinance on activities within the shoreland setback area.

Specifically the bill provides flexibility to average structure setbacks based on existing development patterns on adjoining lots. In Waukesha County portions of Pewaukee Lake have existing development patterns with setbacks greater than 75 feet. This flexibility will protect the viewing corridor and property values of the already existing adjoining structures who would be affected negatively by the placement of a new structure with a setback of only 75 feet.

The bill also clarifies that a lawfully constructed structure that no longer conforms to current shoreland codes can be rebuilt within the original footprint and its previous height. Allowing for reconstruction within the three-dimensional building envelope provides an assurance for the existing property owner while preserving view corridors and values of adjoining properties.

If you have any questions please feel free to call me at (262) 548-8310.

**WHEELER, VAN SICKLE & ANDERSON, S.C.**  
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TESTIMONY OF  
WILLIAM P. O'CONNOR

**WISCONSIN SHORELAND INITIATIVE**

January 19, 2016

**2015 SENATE BILL 477**

I am appearing today on behalf of the Wisconsin Shoreland Initiative a coalition of some seventy lake associations and thousands of lakefront property owners across Wisconsin. My goal is not to flyspeck the provisions of Senate Bill 477, but provide the Committee with background on evolving state policy on the management of Wisconsin's lakes and especially the role of local governments in lake management. I have been in private practice here in Wisconsin for more than 35 years now, focusing on land and water law. Over that time I have represented scores of lake property owners, dozens of lake associations and local governments and statewide associations with interests in land and water law ranging from the Society of Land Surveyors to the Wisconsin Association of Lakes. I have appeared in numerous land and water cases before the Wisconsin Supreme Court.

Governor Thompson used to chide his Minnesota counterpart about their "Land of 10,000 Lakes" license plates because we have half again more than that. Ours range from the world's largest – Lake Superior – to 134 different "Mud Lakes", not to mention "Mud Hen" "Mud Flats" and 3 "Little Mud Lakes." Lake Superior, the largest freshwater lake on the planet, contains more than a tenth of the fresh water on the earth. Every other lake is smaller of course. Some have relatively small lots and reasonably affordable cabins and cottages. Others have mostly year-round homes. Some lakes have crystal clear, clean water. Others, sadly, have been degraded by pollution. Some are busy with boaters on summer weekends. Some still provide a more wilderness experience. Wisconsin's lakes truly present options for everyone.

The heritage of family camps and cabins and memorable fishing trips is important here. But the property surrounding lakes is also a critical economic asset for Wisconsin. The State does not track lake property values very closely, but it's clear that the ribbon of property along lake shores is a huge contributor to local tax bases in practically every county. Just to cite a couple of telling examples: Vilas County estimates that waterfront property constitutes more than 3/4ths of all the value of taxable property in the County. There are only less than eight hundred lakefront parcels in the four townships that surround Big Green Lake. But the assessed value of those parcels those totaled more than \$833 million in 2015. That's more than 37% of the taxable property in all of Green Lake County. So the stakes are high. It matters to the families that own lakefront property how neighboring land is used and developed. For them, a place at the lake is not just a place where treasured experiences are gathered, it is a major pocketbook issue.

Generations of lawmakers have recognized the policy challenge of effectively managing Wisconsin's lakes to ensure that we can maintain this critical economic asset and pass our remarkable lake heritage on to our kids and grandchildren. Even before statehood, the Territorial Legislature considered and adopted Session Laws addressing lake management issues in various local communities, a pattern that continued after Statehood in 1848. Widespread use of automobiles made lakes – even those in far Northern Wisconsin – accessible to anglers and folks looking for a recreational escape. The Roaring Twenties brought development in the state to a whole new level as investors purchased large tracts and subdivided them into lakefront lots. That pattern paused when the Great Depression hit in the 1930s, but surged back after World War II.

The consequences of uncontrolled lakeshore development became an important political issue in the 1960s. In the 1961 Session, the Legislature authorized the State Conservation Commission to classify lakes and streams to improve fisheries and other management issues. Using that authority, later transferred to DNR, the State established some stream classes, including the widely-known Class 1 and Class 2 Trout Streams. But DNR never did classify lakes. Maybe it was just too complicated. Should the classification be based on size, location, fisheries or water quality? Recreational use or boating congestion? Water chemistry? Wildlife value? Or what? Despite their importance (economic and otherwise) lakes have never been classified by the State of Wisconsin and substantially all of Wisconsin law references simply "lakes" and makes no distinction between the smallest and world's largest lake or the 15,000 between.

For at least 50 years, it has been the policy of the state to manage lakes through a shared state/local approach. In the 1965 Session, then-Governor Knowles signed bipartisan legislation requiring counties to enact shoreland zoning ordinances meeting "minimum standards" (including minimum lot area, minimum average lot width and minimum building setbacks) established by the Conservation Commission (later DNR) in the late 1960s. By 1969, every county regulated shoreland development, focused on these key standards. In many counties, elected county supervisors adopted shoreland ordinances following the state minimum standards. But some towns and counties – after

considerable public discussion – set standards that go beyond the state minimums that they determined necessary to address local conditions.

On Lake Superior, for example, greater building setbacks have been required on portions of the shore to protect buildings from erosion that sometimes occurs when powerful storms break on to red clay shores. Lakes with shorelines platted in the 1920s often featured relatively small lots. On others, deeper setbacks just happened because the first one to build a cabin decided to set it back from the shore and neighboring cottages were built respecting that line. Some counties have codified those deeper, existing setback lines to protect the value of existing structures. Each lake has its own special history reflected in patterns of development. But a huge proportion of waterfront development in this state was constructed consistent with the setbacks, average lot width and other standards adopted in those 1960s era ordinances.

Another key step in this story took place in the 1997 Session, when the Legislature expressly authorized counties to classify lakes and provided financial assistance to counties to do that. Lake classification allowed counties to set different standards for lakes with different characteristics. This permitted the adoption of shoreland development standards that reflected the special histories and characteristics of lakes. Finally, counties and towns could adopt development standards that would preserve the variety of lakeshore environments, rather than the “one size fits all” previously required. In the nearly 20 years since it was enacted, lake classification has been a genuine success, praised by many property owners who hope to maintain the lakefront character they have enjoyed for generations, whatever that has been.

Act 55 repealed all these ordinance provisions, substituting a “one size fits all” approach that ignores the local histories and huge physical differences among Wisconsin’s lakes. As the seasons turn, you should expect to hear from constituents whose property values have been hurt by recent, newly authorized near-shore construction that blocks views families have enjoyed for decades. This is the first time property owners and other lake users have been able to address a Senate Committee to discuss the impact of Act 55 on lakes and lake property. I urge the members of this Committee to work with our Shoreland Initiative and other representatives of lake property owners and users to work out changes to Act 55 that will better maintain Wisconsin’s lake heritage and the value of our greatest natural resource.

In my judgment, the most critical step you can take immediately is to restore local control over the building setback to address situations, like those described in Section 6 of this bill, but to include other situations where lakefront homes are further back from the shore, whether that happened because of a government mandate (as the bill provides) or because the homeowners themselves simply decided to build further back. A teardown/replacement house placed much closer than an existing pattern of development will not damage the value of neighboring homes any less just because that pattern of development wasn’t mandated by law.

Whether or not they were tweaked through recent lake classification efforts, critical standards for shoreland development were set locally, by the elected officials citizens and lake property owners encounter at their churches and hardware stores. They were developed following active involvement by the people who most use our lakes, including fisherman who use public access sites and shoreland property owners. Those folks attended sometimes tedious meetings in local courthouses and town halls. Their voices were heard by the decision makers in their communities during the summer season when people are focused on a very special part of their lives in Wisconsin.

In the longer run, I urge each of you when summer comes back (and it will), to visit with constituents who hunt and fish and go boating and own lakefront property and hear what they have to say about the repeal of local shoreland development authority enacted in the budget bill. And consider the wisdom of policies that evolved over decades in this lake-rich state where we recognize that you can't effectively manage 15,000 widely different lakes from here in Madison. The truth is, that we will all benefit best from an effective state-local effort that recognizes local conditions, the science of lakes and their ecosystems and the interests and wishes of citizens and property owners. You might consider formation of a blue ribbon or Legislative Council Committee bringing together policy makers (state and local) with lake users and the property owners who have a deep stake in the policies you adopt. That would provide a way for lawmakers, property owners and lake users to revisit the big picture of shoreland development and consider: Which areas of shoreland development should be left to the decisions of town and county boards to address local circumstances? Which elements of the shoreland standards should be uniform throughout the state? Which state standards should be left to administrative rules? Which should be hardwired in the statutes?

I know the lake property owners who have joined together in the Shoreland Initiative would be eager to participate in a meaningful discussion of this important topic.

Thank you.

Testimony of  
**A. John Richter**

Representing the  
**WISCONSIN SHORELAND INITIATIVE**

Senate Committee on Natural Resources and Energy  
January 19, 2016

**2015 SENATE BILL 477**

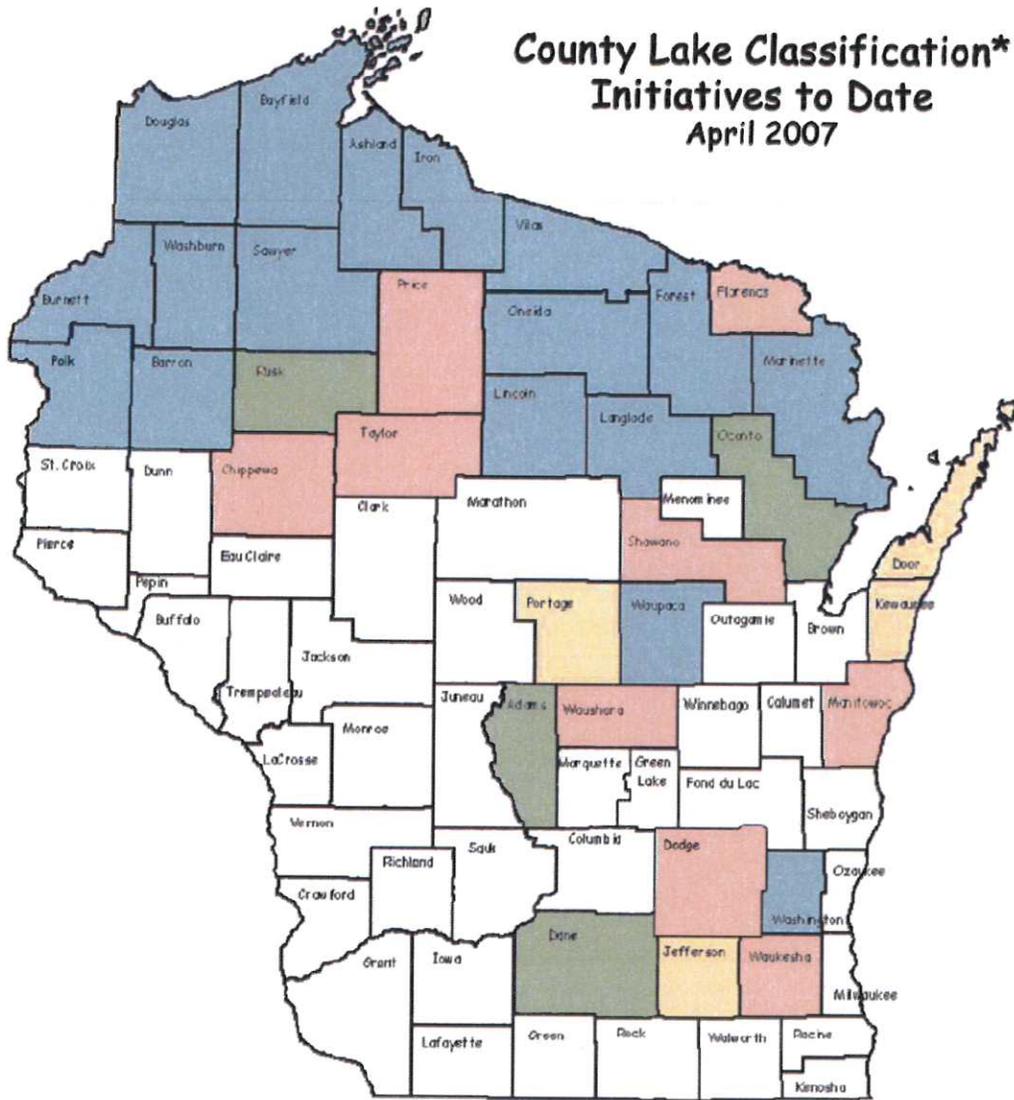
I am John Richter, appearing today on behalf of the Wisconsin Shoreland Initiative and the Plum Lake Association. As an active sportsman and fisherman and a retired businessman, I would like to thank you, Senator Cowles, for your willingness to listen and work with us as the Chair of this Committee to create the lake classification system and to enhance the quality of the lakes and shorelands in Wisconsin.

Act 55 contained provisions that have the certain potential to do irreparable harm to our lakes and shorelines. We have been attempting to work with the Legislature, including the authors of this bill, to draft amendments that would correct some of the most serious threats to the protection of our lakes and shoreland as a result of these provisions.

It is important to note that an effort to protect our lakes and shorelines from continued degradation resulted in a statewide effort to classify lakes that began nearly 30 years ago. The amount of time and money that has been invested in that effort is difficult to calculate. A large number of agencies spent years on their work. Lake associations and towns completed lake assessments – studies that helped those who were working on the classifications. In my Town of Plum Lake in Vilas County, all of the lakes were studied and documented and I am sure that effort was replicated across the state. The counties, in conjunction with DNR, worked for 18 months to 2 years EACH on their projects, with the help of citizen members and volunteers. Other agencies such as the Sea Grant Institute, The Wisconsin Coastal Management Program, NOAA, the US Corps of Engineers and UW Extension published research that assisted the counties in their effort to base the classification in science. A great deal was learned from this incredible investment and the resulting regulations were not controversial. The protection of our lakes was not a political issue then, and it should not be a political issue today.

The following map shows all counties that have engaged in lake classification. **The total numbers of lakes that have completed lake classification represent nearly two thirds of the named lakes in Wisconsin.**

## County Lake Classification\* Initiatives to Date April 2007



- Adopted a classification system & significant shoreland ordinance upgrades by water class
- Working on a classification project
- Gathered county lake data to guide countywide and/or local lake protection efforts
- Only generated a classification system

*\*The Lake Classification grant program and formal state enabling for counties to use the lake classification tool were initiated by statutory changes (in Ch. 281.69, Wis. Stats.) passed by the Legislature and Governor in 1997 and administrative rules (Ch. NR 191, Wis. Admin. Code) adopted by the Department of Natural Resources in 1999.*

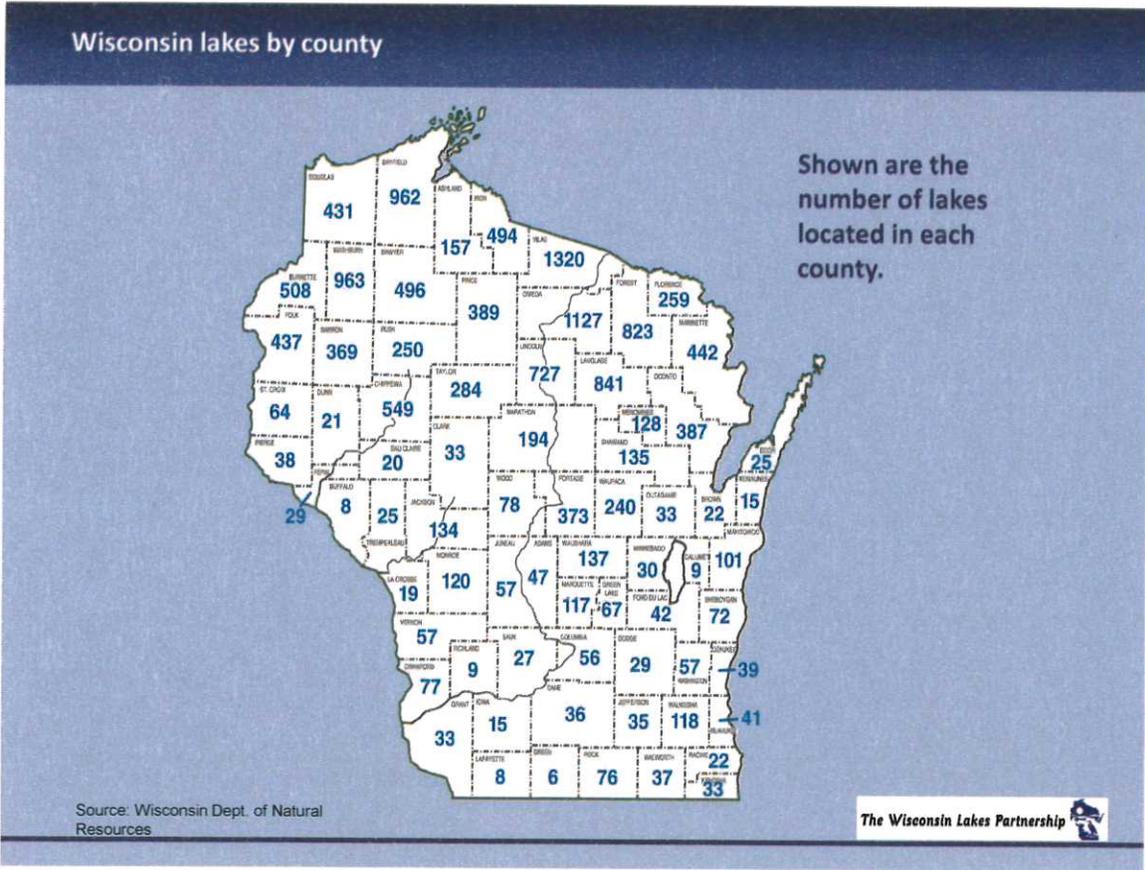
Blue counties (17) adopted a classification system and significant shoreland zoning ordinance upgrades (typically included larger lot sizes, setbacks, and/or larger buffers) by water class:

- Ashland (157 lakes)
- Barron (369)
- Bayfield (962)
- Burnett (508)
- Douglas (431)
- Forest (823)
- Iron (494)
- Langlade (841)
- Lincoln (727)
- Marinette (442)
- Oneida (1127)
- Polk (437)
- Sawyer (496)
- Vilas (1320)
- Waupaca (240)
- Washburn (963)
- Washington (57)

Total lakes with regulations set by their counties via lake classification prior to Act 55: 3,076 lakes.

In addition, the following 4 counties all had building setback standards more restrictive/protective than the state standards for some of their lakes and rivers prior to Act 55

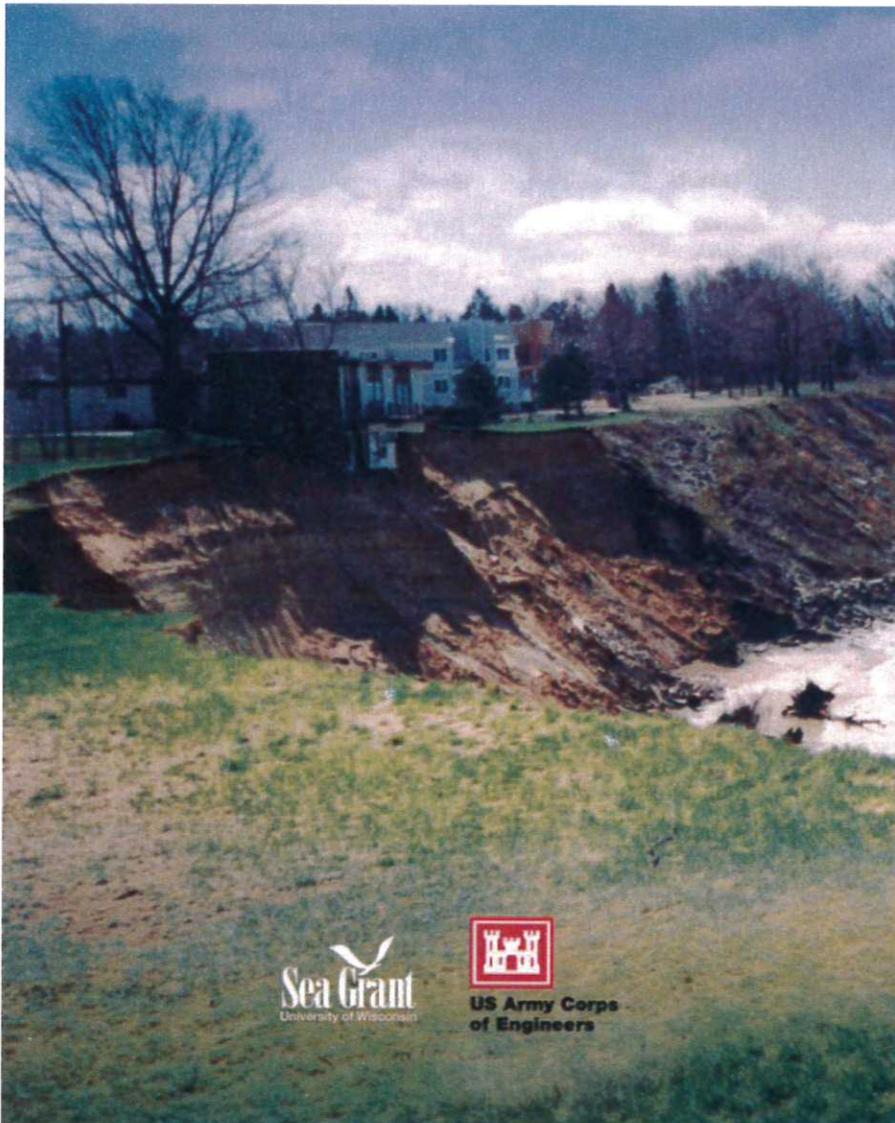
- Portage (373 lakes)
- Waukesha (118)
- Florence (259)
- Jackson (134)



My home county, Vilas, is an example of years of effort lost, both public and private expenditures wasted, knowledge ignored and lakes again threatened. To the stewards of these 1300 lakes, it feels like a return to the dark ages.

I asked Mary Platner, of St. Germain to provide the history of our effort in Vilas County and I am providing her remarks with mine. Mary was involved in our county lake classification and has been a steward of our Wisconsin Lakes for many years.

She has done an excellent job of reconstructing that history and her comments reveal both the depth and breadth of this effort. In it, she also reveals the hard cost to Vilas county and DNR of \$86,000. This does not include all of the volunteer effort that underlies the conclusions, or the work of outside agencies to provide scientific support to the project.



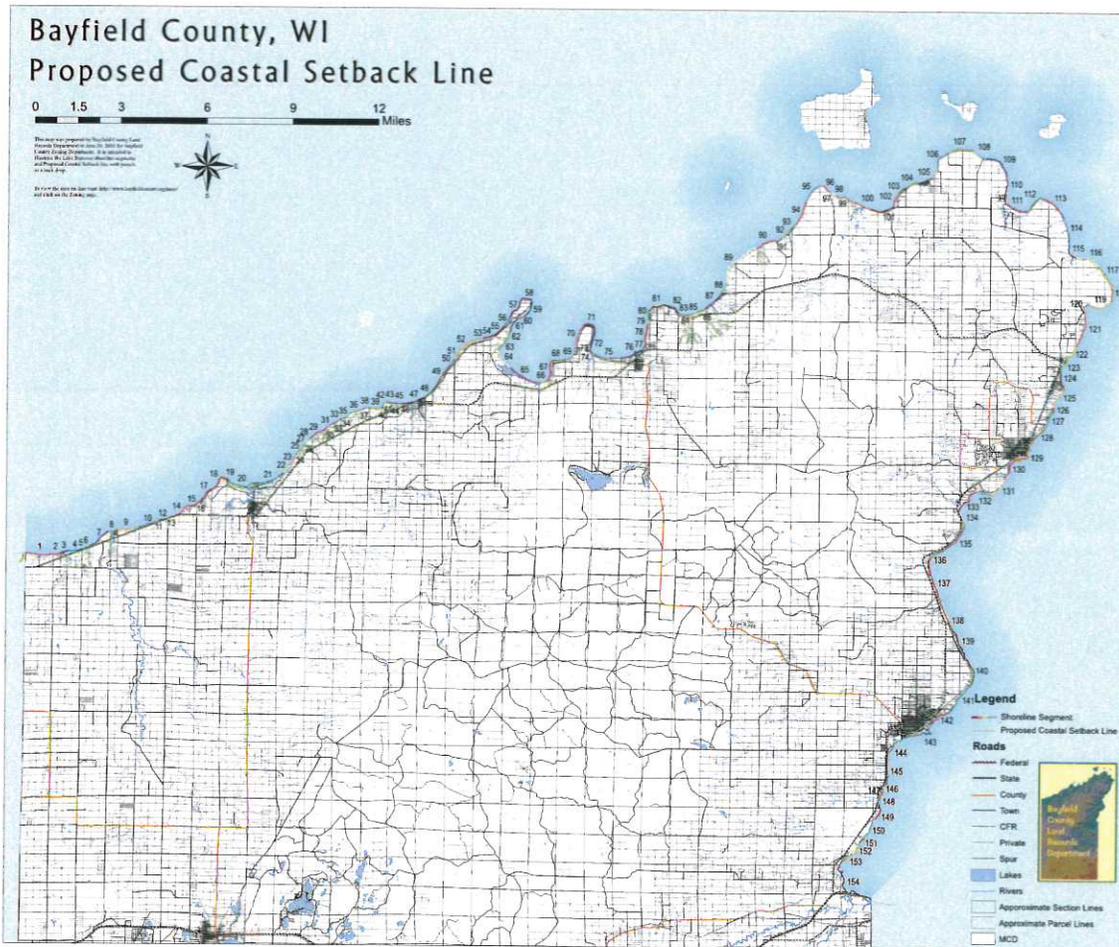
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US Army Corps  
of Engineers

I would like to highlight one other situation that will further illuminate how damaging this legislation is - the issue of setback on the Great Lakes. It is interesting that negotiation with Waukesha County on behalf of Pewaukee Lake to modify the 75-foot setback requirement in State law is suggested as a modification that can allow all of us to support this bill. Nothing could be further from the truth. It is clear to those who understand the issue that, while it may help Pewaukee, it does nothing for a wide swath of other lakeshore across the state.

For example, I would ask you to consider Bayfield County. Attached to my comments are a couple of studies and a portion of the county zoning code along with some photos of property falling into the lake(see above), as a result of erosion. The map below refers to sections of the shoreline and "Appendix A" (which is attached) shows setback requirements in Bayfield County. I won't belabor a description aside from saying that each small section along the Lake Superior shore shows a different setback that reflects the dynamics of that part of the shoreline.



SEE APPENDIX "A" ATTACHED FOR SETBACK FOR EACH SECTION

The photos above show the danger. The differing setback requirements in "Appendix A" are based on solid math and solid science and are the very definition of why one size absolutely does not fit all. To force a 75 ft. setback maximum on Bayfield County is a travesty and only serves to make a challenging situation worse.

I am sure you would all recognize that nearly every county on our Great Lakes from Douglas to Kenosha has a great deal in common with Bayfield and their fight against erosion. This example demonstrates the need and confirms the propriety of allowing local government to manage zoning issues on the lakeshore within its jurisdiction. The enclosures and attachments are also proof of the competence of county governments in this area.

The lakes that have spent time and money on setback ordinances are as follows:

#### Northwest WI

- Bayfield
- Douglas
- Washburn
- Burnett
- Barron
- St. Croix

#### Northeast and Central WI

- Florence – includes designated Wild Rivers
- Marathon
- Portage
- Lincoln
- Langlade
- Menomonee
- Waushara
- Waupaca

#### Counties bordering Lake Michigan and Southeast WI

- Kewaunee
- Manitowoc
- Sheboygan
- Ozaukee
- Racine
- Jefferson

#### West central WI

- Trempealeau
- Jackson
- La Crosse
- Monroe

This information comes from the most comprehensive review of shoreland zoning ordinances in Wisconsin over the past 20 years (See page 4-A-1) and is located at: <https://www.uwsp.edu/cnr-ap/clue/Documents/Creating%20an%20effective%20shoreland%20zoning%20ordinance.pdf>

In the short time we have had this morning, we have presented some examples of why this bill needs changes and why we need to work together to repair the damage done by Act 55. We are in jeopardy of losing the knowledge acquired by the incredible efforts and great cost over past decades by involved Wisconsin citizens. These new regulations place our lakes, shorelines, the value of our property and our economy at great risk.

Property rights have now been brought in to the discussion here in the Legislature. Rights are being lost and rights are being affected due to the provisions of Act 55; property rights of neighbors, rights to peaceful enjoyment of one's property, rights to protect the value of property, rights to ensure the tax base and rights to defend the health and safety of our lakes, rivers and shorelines for future generations.

In our state, where water plays such an important role in the current and future economy and life of its citizens, it is incumbent on all of us to be leaders in the effort to protect our lakes and lakeshore to prevent damage that is always irreversible. We have learned, at great effort and expense, which types of land use practices damage our lakes and what it takes to prevent that damage. On this point, there is no dispute. With our lakes being a cornerstone of our economy and the foundation (and in many instances the majority) of the tax base of many counties, we have an incentive to get it right and to keep it right, for our generation and for generations to come. It is our responsibility and a sacred trust.

This Committee has the opportunity to fix the problems created by Act 55. We are committed as constructive partners to work with this Committee and the entire Legislature to find the responsible, fair, and workable changes that are required to enhance and protect Wisconsin's most valuable resource: our lakes and shorelands.

Thank you.

## AMENDMENTS TO BAYFIELD COUNTY ZONING ORDINANCE

Sec. 13-1-34 is created to read as follows:

**Sec. 13-1-34 Lake Superior Shoreland Lot Development Requirements.**

**Introduction.** Much of Bayfield County's Lake Superior shoreline is bordered by steep bluffs with or without an adjacent beach, and is very susceptible to erosion. Rock slopes erode very slowly, but catastrophically when undercut by waves. Clay slopes may be stable for years then erode or slump very quickly. Stormwater is also a significant factor in shoreline recession and erosion. The Official Bayfield County Lake Superior Shoreline Segment Map—incorporated into this ordinance by Sec. 13-1-20(c)(5)—establishes numbered segments of the Lake Superior shoreline, which are subject to the setback requirements set forth below. The setback requirements in subsection (a) are based on historical and scientific calculations specific to each shoreline segment. If the Department determines by on-site inspection of a lot that the applicable setback listed in subsection (a) is inconsistent with the pertinent characteristics of the lot's shoreline, the Department shall calculate the setback for the lot based on the observed characteristics, using the same formula and criteria used to calculate setback distances for the Lake Superior Safe Setback line.

- (a) **Lake Superior Shoreline Setback Table.** Except as otherwise provided in this section, the required setbacks from the ordinary high water mark for principal structures or any accessory structures greater than (>) 500 sq. ft. on lots with frontage on Lake Superior are shown for each point of the shoreline on the Bayfield County Lake Superior Shoreline Safe Setback Map. **Representative** setbacks for each shore segment are shown in the table below. Segments with an NA in the setback distance column shall be calculated by the Department on a lot-by-lot basis within the segment, using the same formula and criteria used to calculate setback distances for other segments in the table.

## Representative Lake Superior Shoreline Setbacks

Segment Number	Total Setback in feet						
1	282	40	NA	79	129	118	162
2	184	41	163	80	151	119	164
3	NA	42	242	81	142	120	113
4	260	43	149	82	175	121	160
5	205	44	269	83	260	122	181
6	NA	45	282	84	298	123	86
7	195	46	226	85	331	124	156
8	NA	47	233	86	NA	125	132
9	228	48	174	87	217	126	189
10	200	49	148	88	250	127	202
11	NA	50	169	89	178	128	170
12	140	51	191	90	164	129	NA
13	150	52	175	91	NA	130	152
14	130	53	402	92	170	131	142
15	148	54	353	93	242	132	160
16	200	55	216	94	206	133	100
17	140	56	129	95	132	134	NA
18	133	57	132	96	160	135	138
19	130	58	125	97	125	136	153
20	171	59	142	98	193	137	85
21	80	60	121	99	337	138	NA
22	116	61	180	100	82	139	NA
23	240	62	210	101	125	140	133
24	NA	63	198	102	214	141	NA
25	210	64	79	103	209	142	145
26	NA	65	80	104	154	143	NA
27	286	66	80	105	183	144	82
28	NA	67	312	106	180	NA	174
29	253	68	203	107	160	NA	140
30	NA	69	212	108	194	147	160
31	340	70	161	109	161	148	151
32	NA	71	155	110	178	149	116
33	328	72	200	111	113	150	127
34	354	73	195	112	147	151	193
35	NA	74	79	113	184	152	85
36	420	75	80	114	193	153	100
37	NA	76	80	115	80	154	83
38	547	77	159	116	160		
39	341	78	200	117	170		

NA = Contact Planning & Zoning Department for on-site determination.

*Note: These are representative numbers. Consult the Shoreline Safe Setback map for site specific setback distances.*

- (b) **Other Setbacks and Height Restrictions.** The provisions of Section 13-1-22, pertaining to setbacks and height restrictions, shall apply to lots with frontage on Lake Superior except for paragraphs (a)(1) and (2)a, b, and c thereof.
- (c) **Alternative Setback Requirements**

- (1) **Reduced Roadway, Rear Yard, and Shoreline Setbacks for Platted Lots.**
  - a. **Shoreland Setback Adjustment.** If a platted lot is not deep enough to accommodate required roadway or rear yard and shoreline setbacks and a thirty-foot deep building site, the roadway or rear yard setback may be reduced until a thirty foot (30) deep building site is established, provided that the resulting setback is not less than one-half the distance of the required setback. If the road or rear yard setback reduction does not provide a thirty foot (30) deep building site, the shoreline setback may then be reduced until a thirty foot (30) deep building site is established, provided that the resulting shoreline setback is not less than two-thirds of the distance of the required setback under subsection (a) and is at least 60 feet back from the edge of any discernible bluff.
  - b. **Mitigation.** A property owner shall comply with the mitigation requirements of Section 13-1-40(c)(5) in order to qualify for the setback reductions of this provision.
  - c. **Shore Protection Practices.** Shore protection practices under paragraph (2)b of this subsection may also be required to qualify for the setback reductions of this provision.
- (2) **Special Exceptions.** For lots that cannot meet the reduced setbacks provided above in paragraph (c)(1) but have at least ninety (90) feet from the top of the discernible bluff to the rear of the lot, the owner may apply to the Bayfield County Board of Adjustment for a special exception under Section 13-1-102(e)(4) authorizing a further reduced shoreline setback for a moveable structure meeting the requirements of subparagraph a. below. Shoreline protection practices subject to subparagraph b. below and/or shoreline protection structures subject to subparagraph c. below may also be required.
  - a. **Moveable Structure Requirements.**
    1. The property owner shall submit a report from a professional building moving contractor certifying that the structure can be feasibly moved at a cost not to exceed thirty (30) percent of the equalized value of the structure.
    2. The property owner must certify that the structure will be moved before any part of the structure is within fifty (50) feet of the receding edge of the bluff. The certification must be recorded with the Register of Deeds for Bayfield County.

The certification must also state that the last owner of record, as shown on the latest assessment roll, is responsible for removing the structure, its foundation, and all costs associated with the move.

- b. **Shore Protection Practices.** Shore protection practices include, but are not limited to natural coastline restoration by nourishing beaches; restoring and constructing dunes and beach ridges; creating or restoring coastal wetlands; shore armoring with riprap, seawalls, and groins. Any structures need to be designed and built by a trained professional familiar with the Great Lakes erosion processes.

Shore protection plans that include structures shall contain the following:

1. A site investigation of slope stability and coastal erosion.
2. A site investigation of near shore lakebed erosion.
3. Consideration for impact on neighboring or down current properties.
4. Access to site and structure for monitoring and maintenance.

- c. **Shore Protection Structures.** The following requirements apply to the construction, modification or restoration of shore protection structures:

1. All necessary permits must have been received and/or reviewed by the Wisconsin Department of Natural Resources, the U.S. Army Corps of Engineers and Bayfield County Land Conservation Department.
2. The structure must not be likely to cause a measurable increase in erosion, including lakebed erosion, at the development site or at other locations.
3. The structure must minimize and prevent adverse effects upon natural protective features, existing erosion-protection structures and natural resources, such as significant wildlife habitats. This includes the impact of the structure on the movement of sand along the shore.
4. All shore protection structures must be designed and constructed according to generally accepted engineering

## EXHIBIT A

principles. The design and construction shall be certified by a professional engineer as having a reasonable probability of controlling erosion on the immediate site for at least thirty (30) years.

5. All materials used in such structures must be durable and capable of withstanding inundation, wave impacts, weathering and other effects of storm conditions for a minimum of thirty (30) years. Individual component materials may have a working life of less than thirty (30) years only when a maintenance program ensures that they will be regularly maintained and replaced as necessary to attain the required thirty (30) years of erosion protection.
  6. A long-term maintenance program must be included. The maintenance programs must include specifications for normal maintenance of degradable materials including repairs necessary to maintain the integrity of the shore protection structure. To assure compliance with the proposed maintenance programs, a bond or other financial security may be required.
  7. There must be a minimum of seventy-five (75) feet from the shore protection structure to any permanent structure. If the bluff or dune is unstable due to height, slope, wind, erosion, or groundwater seepage, a greater setback may be required. There shall be sufficient access to permit the maintenance and repair of the shore protection structure.
  8. Excavating, grading, mining, or dredging which diminishes the erosion protection afforded by near shore area is prohibited, except construction or maintenance of navigation channels, bypassing sand around natural and man-made obstructions and artificial beach nourishment in accordance with the permit requirements of the Wisconsin Department of Natural Resources.
  9. Before approval by the Department of any shore protection structure, the applicant shall obtain a Class B special use permit from the county. Notice shall be sent to all riparian owners within three hundred (300) feet of the proposed shore protection structure.
- (3) **Variances.** If none of the above setback requirements can be met, then development of the subject parcel may only be permitted by a variance granted by the Bayfield County Board of Adjustment.

(d) **Site Planning.**

(1) **Site Plan Approval Standards.** Except as provided in paragraph (3) of this subsection, any lot on Lake Superior for which new development is proposed shall require a development site plan that meets the following standards, subject to the review by the County Planning & Zoning Department:

- a. The site plan must minimize disturbance natural habitat;
- b. The site plan must demonstrate that erosion and sedimentation shall be minimized,
- c. The site plan must demonstrate compliance with Section 13-1-23 (Shoreland-Upland Screening, Fencing, and Vegetative Management)

(2) **Site Plan Components and Site Plan Content.**

- a. Individual site plans must incorporate setbacks, bluff stability, past recession rates, and drainage patterns on a property.
- b. Plans must be prepared to scale or dimensions and include the following:
  1. All lake shorelines, streams, wetlands, groundwater seeps, springs, soil types, soil strata and groundwater table at the site; and all existing roads, driveways, structures, culverts, and other pertinent features on the site or within one hundred (100) feet of the area of site disturbance.
  2. Existing ground contour lines and proposed ground contour lines at five (5) foot intervals encompassing the area of site disturbance and in the immediate area of influence of the disturbed areas, e.g. within fifteen (15) feet.
  3. Structural dimensions and onsite materials used
  4. Location of the ordinary high water mark
  5. Bluff height and stability
  6. Rates of erosion and recession
  7. Shoreline erosion control plan or structures
  8. A grading or fill plan
  9. Potential building relocation plans

10. Location of nearby natural resources such as wetlands, bluffs, dunes
  11. On-site wastewater treatment facilities
  12. Stormwater management plan
  13. Plans for lake access
- (3) **Expansion of Existing Structures.** The requirements of this subsection shall not apply if the only proposed development is the expansion of an existing structure, except for the requirement of a storm water management plan
- (e) **Substandard Lots.** Section 13-1-26, pertaining to substandard lots of record, applies to substandard lots with frontage on Lake Superior.
- (f) **Nonconforming Structures and Uses.**
- (1) Structures and/or uses on lots with frontage on Lake Superior that were nonconforming prior to the adoption of this section on July 26, 2011 are subject to the provisions of Article I pertaining to nonconforming uses and structures, provided that in addition to meeting the requirements of that article, an owner applying for a permitted expansion of a structure that is nonconforming with respect to shoreline setback must submit a shore protection plan to the Department, including shore protection practices and/or shore protection structures, that the Department determines to be adequate to protect the structure from damage due to shoreline erosion for a period of 30 years, based on the composition of the shoreline, its estimated rate of recession, and other relevant factors.
  - (2) Structures on lots with frontage on Lake Superior that were conforming prior to the adoption of this section but do not meet the shoreline setback requirements of this section are not subject to the provisions of Article I, but an owner applying for an expansion of such a structure shall be required to submit and implement a storm water management plan incorporating best management practices and may be required by the Department to submit a shore protection plan that the Department determines to be adequate to protect the structure from damage due to shoreline erosion for at least 30 years, if there is a reasonable probability that the structure would be damaged by shoreline erosion within such time period without the implementation of a shore protection plan.
- (g) **Revision of Lake Superior Shoreline Segments and Setbacks.** Lake Superior shoreline segments and setbacks may be revised by amendment of the Lake Superior Shoreline Setback Table in 13-1-34 (a) pursuant to this provision and in accordance with Section 59.69(5)(e) Wis. Stats., containing the statutory

**EXHIBIT A**

procedure for amending county zoning ordinances. The petitioner should be prepared to demonstrate to the Zoning Committee and County Board that an error does in fact exist with respect to the setback distances stated in the Lake Superior Shoreline Setback Table.

- (h) **Coastal Setback Calculator.** Calculator and explanatory materials used in determining Lake Superior shoreline setbacks are available at the County Planning & Zoning Department office.

## **Regarding Fiscal Loss of Vilas County Shoreland Zoning Ordinance.**

By Mary Platner, a member of the Vilas County Subcommittee on Lake Classification from 1998 to 1999.

The Wisconsin Legislature recently passed legislation (Act 55) that removed the right of all Wisconsin Counties to enact a shoreland zoning ordinance (applicable to all shorelands in its unincorporated area) and mandated that the ordinance **may not be more restrictive** than the shoreland zoning standards established by the Department of Natural Resources. Effectively, it removed the ability of all 72 counties to protect their lakes and rivers from degradation by excessive and improper development activities along lake shores. It further enacts 5 other amendments affecting shoreland zoning without input from the people of Wisconsin.

Wisconsin is a state rich in lakes with 3,620 lakes larger than 20 acres. The total inland lake surface percentage in the state approaches one million acres. Due to variations in chemical and biological composition, physical characteristics, and diversity of origin, each lake should be considered unique. Vilas County has 1318 named lakes. It is no wonder that Vilas County is concerned with protection of this vital resource and the loss of its ability to manage its most valuable asset by the recent legislative attack.

This action, which was introduced at the eleventh hour to the Joint Finance Committee and submitted to the legislature as part of the budget bill (Act 55) and enacted within 30 days without public input goes down in legislative history as one of the most outrageous changes in Wisconsin Government on record. It has especially disastrous implications, if not rescinded, that will emasculate the efforts of those counties with the most lakes, to preserve and protect the very water that drives their economic viability.

### **But first a bit of history**

The state of Maine enacted a mandatory shoreland zoning law in 1971 in response to increasing development pressure. The legislature concluded that strict regulation of land-use activities was necessary in the shoreland zone. Today Maine's law is recognized as a national model of responsible environmental regulation. Their Shoreland Zone Act requires all municipalities to enact, administer, and enforce a local ordinance. Their state establishes minimum ordinance standards, but local government is required to enact, administer and enforce their local ordinances.

In the succeeding years, hundreds of scientific studies allowed an accurate prediction of pollutant loads to lakes from shoreland development and confirmed there was indeed a need to protect the shoreland from excessive and improper types of development. These studies also focused on key issues such as lake classification, which is used to group lakes into separate classes based on their sensitivity to developmental impacts, while recognizing existing levels of development.

In June of 1995, Bob Young, WDNR official in Rhinelander, was asked to do a presentation to the Vilas County Zoning Committee on Lake Lot Development. The statistics provided in his four overheads were mind-boggling. The first overhead compared the amount of runoff, phosphorus and sediment for an undeveloped 100x200 foot lake lot in a typical forest with a 6% slope and sandy loam soil produced between the months of April-October. The second overhead showed the same statistics for a 1940's development of the same lot but with a 700 square foot cottage, an 800 square foot gravel driveway and a 35 foot wide buffer strip. The third overhead showed a typical 1990 development with 3350 square foot perimeter and a paved 770 square foot drive. The fourth overhead showed that the 1990 scenario, would now produce 5000 cubic ft. of runoff, 0.20 pounds of phosphorus, and 90 pounds of sediment to the lake. This represented that by the 1990's changes in lake lot development produced 5 times the amount of runoff, 18 times the sediment, and 7 times the amount of phosphorus than the undeveloped lot. This information was helpful to stimulate the need for Vilas County to undertake the process of enacting a county shoreland ordinance.

By July, 1998, Vilas County Board of Supervisors had approved the formation of a Lake Classification subcommittee and a Lake Sensitivity subcommittee, under direction of County staff members Tiffany Lyden, Vilas County Lake Conservation Specialist, Bryan Pierce, Vilas County UW Extension Resource Agent, and Fred Hegeman, Vilas County Zoning Administrator. They met monthly for the next 4 months.

In December, 1998, a discussion was held on the Lake Classification Project, which had completed the analysis of 269 lakes on their sensitivity and development in terms of low, medium, and high, confirmed lake areas, established minimum lot frontage, area and width, keyhole allowance, maximum boathouse size, and mitigation points required. The meeting also focused on balancing lake protection with the needs of resorts, with representatives of eight resort owners.

On December 9, the Vilas County Lake Classification subcommittee met in conjunction with the Vilas County Zoning, Planning and Pollution Control committee for a 5 hour marathon meeting with 30 individuals representing committee members, advisory representatives from the tribes, lake associations, builders, land surveyors, forestry council, towns associations, realtor associations, and county staff & resource members.

On December 21, 1998, another joint meeting of the Lake Classification subcommittee and the Vilas County Zoning, Planning and Pollution Control Committee was held to review final proposals, review and discuss the language of the proposed ordinance's 11 articles, and recap proposals regarding buffer zone vegetation, incentives for restoration, septic system inspections, soil erosion, runoff from imperious areas and remaining areas to be addressed. It also set the dates of two public hearing to be held on January 28, 1999 at 6 pm. at the Manitowish Waters Community Center and on January 29 objectives at the Conover Community Center. Staff

will prepare a discussion presentation prior to the public hearings at which speakers will given a limited time to state their comments for public record and written comments accepted until 4 pm. on February 5.

On February 9, 1999, another 4 hour marathon joint meeting of the Vilas County Zoning, Planning and Pollution Control Committee and the Lake Classification subcommittee was held along with 10 staff members and advisory resource personnel and with 40 additional persons from the 14 Vilas County townships and the City of Eagle River. There was review and discussion on the public hearing input and the written comments. It was noted that 192 persons attended the Manitowish Waters public hearing and 110 attended the hearing held in Conover. There was insufficient time to continue the review process and allow for audience comments. Another meeting was scheduled for February 11 at the Lincoln Town Hall.

The February 11 meeting began at 10 a.m. again with 21 staff, committee and advisory committee member and 27 and committee members present and 27 others attendees. The meeting adjourned at 5:10 and required 21 pages of discussion, revisions, and comments. There was a motion to generate a draft that compared the changes made on 2/9 and 2/11 and generate a comparison of the proposed ordinance as printed in the newspaper and brought to the public for comment. A final review by the 2 committees was scheduled for February 18 to review the final ordinance before presentation to the County Board.

The final shoreland ordinance was adopted by the Vilas County Board of Supervisors at their second special meeting on April 7, 1999. After 6 hours of discussion, with a few amendments, the Board approved the revised Vilas County Shoreland Zoning Ordinance, including the lake classification system, by a vote of 14-3. They also approved amendment to the Condominium section of the Vilas County General Zoning Ordinance and changes to the Sanitary Ordinance focusing on upgrading older, pre-1980 septic systems.

On April 20, 1999, the County Board adopted a Resolution in Recognition of Bryan Pierce, Fred Hegeman, Tiffany Lyden, Coureen Rogers, Mapping Coordinator, and Doug Prigge, the GIS Technician and the 10 members of the Lake Classification Subcommittee who volunteered and worked many hours to make the lake classification project a success.

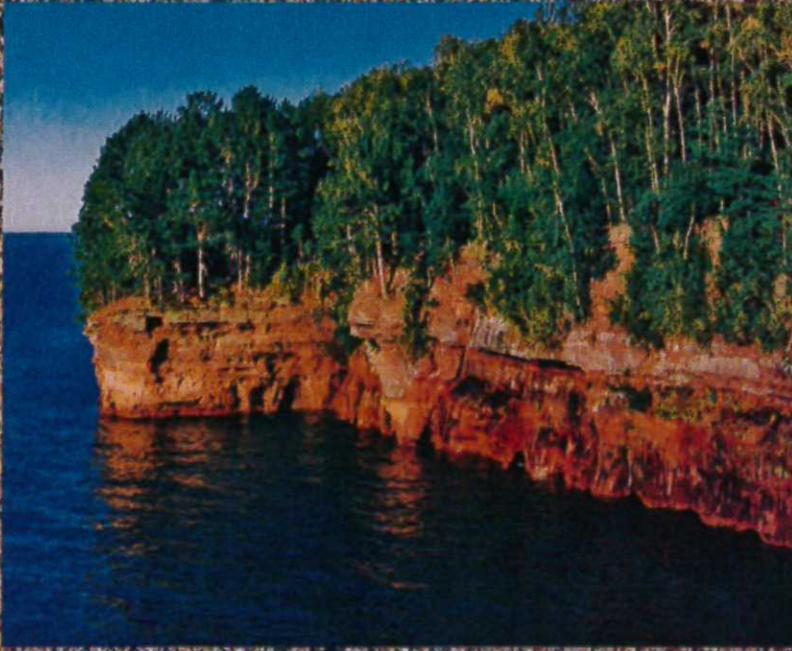
As a member of the Lake Classification subcommittee which held 30 meetings, I have made a careful analysis of the hours of effort that went into the creation of the Vilas County Shoreland Ordinance and its subsequent purpose and intent. Although it is difficult to recreate an event that happened 16 years ago, I arrived at a reasonable assessment of the time, effort and money to achieve the goal of an ordinance with the following purpose: 1) Promote the public health, safety, convenience and welfare. 2) Protect spawning grounds, fish and aquatic life. 3) Preserve shore cover and natural beauty 4) Provide and control water pollution. 5) Prevent

erosion of the soil. 6) Preserve the compatibility of proposed development with existing land and water usage, and 7) Control building sites, placement of structures and land uses.

In conclusion, my considered estimate is that the project required over 2000 paid hours and an additional 2000 volunteer hours donated in the creation of the Vilas County Shoreland Zoning Ordinance. At \$20 per hour, this amounts to a total expenditure of \$88,000. Interesting enough, I finally obtained a copy this morning of the project's total budget report, which amounted to \$84, 200.35 and did not include any public or volunteer hours donated.

It is a travesty to have that effort and 16 years of implementation destroyed by a few legislators who responded to the realtors who want to sell 100 ft. lots and the desire of builders and contractors who want to capitalize on receiving more contracts.

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# Lake Superior Shoreland Erosion and Safe Building Setbacks

A Guide to Developing Coastal Property  
in Bayfield County



# Erosion and Your Lake Property

Coastal shoreline property has unique characteristics that require special attention. Due to erosion, several Lake Superior houses have had to be removed or relocated in recent years because they were literally in danger of falling into the lake.

If you are planning to build on your Lake Superior property, or purchase new property that you hope to build on in the future, this guide is for you. It is designed to help you understand the impact of erosion and plan a safe setback distance for your new building. It can also help you evaluate property before you purchase it. Planning a sufficient setback now will safeguard your investment by protecting your structure from erosion. This will minimize the chances that it will need to be moved or even destroyed in the future.



## A Shifting Coastline

Unlike inland shores, Lake Superior's coastline is subject to significant erosion. In fact, every year an average of 97,000 cubic feet of soil and rock per mile of shoreline is eroded along Lake Superior.

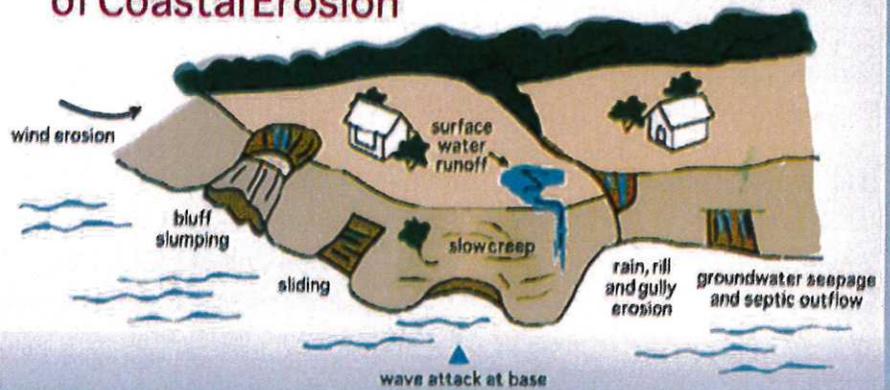


Much of the Lake Superior shoreline in Bayfield County is bordered by steep bluffs with or without an adjacent beach. These bluffs are very susceptible to erosion. Some, like rock slopes, erode very slowly. Others, especially those made of clay, can be stable for years and then erode or slump very quickly. Because the rate of erosion is so variable, many property owners or potential buyers don't notice changes and are unaware of the dangers this process can pose to their property.

## Why do bluffs erode?

A steep bank is not as stable as one with a more gradual slope. Picture a sandcastle on the beach. When left alone, wind, rain, and waves will gradually wear down the structure until it eventually becomes part of the smooth sloping beach again. Like the walls of a sandcastle, all slopes will eventually reach a stable angle – an angle with a more gradual slope that is not as likely to erode.

## Causes and Processes of Coastal Erosion



Source: Keillor, Phil. "Dynamics of Erosion." Coastal Erosion Public Meetings September 2003. Bayfield County Land Records Dept.

Most slopes that are undisturbed have reached that stable angle. However, on the Lake Superior shoreline, waves undercut the base making it steeper and causing significant erosion. When the base of the bluff is undercut, soil or rock above is no longer stable, and the slope begins to fail as shown in the figure above. This continual inland movement of shoreline is known as *recession*. Storm water runoff, groundwater seepage, varying lake levels, and even wind and other forces of nature can impact the erosion rate. Some types of slope failure, like slides and slumps, occur suddenly. At times, 20 to 30 feet of bluff top can collapse at once. Even if there are not obvious large slope failures, disturbed slopes recede slowly through a process called creep. This is slow down-slope movement that commonly occurs on clay. Although this process is slow, it is nonetheless difficult to stop and will eventually cause the bluff top to recede.



## What is a stable slope angle?

Even if all wave action were stopped, a bluff top will continue to recede until it reaches a more gradual slope. The actual angle that it needs to achieve in order to become stable depends on the type of material in the bluff. A bank composed primarily of clay, for example, becomes stable when it reaches a 14 degree angle. A bank composed of bedrock, on the other hand, can stabilize at a much steeper angle.

## Planning for the Future

Erosion is inevitable so it's critical to plan for it by including a safe setback for new buildings. Previously Bayfield County required a minimum setback of 75 feet. New research has proven that, in some areas, this distance is not sufficient and a greater setback is required. Therefore, new criteria are being established that include allowance for erosion. These distances vary from one location to another as soil type, recession rates, and other conditions vary.

**The Bayfield County Planning & Zoning Website Can Help (Visit [www.bayfieldcounty.org/zoning](http://www.bayfieldcounty.org/zoning))**

The Planning & Zoning website can help you calculate a safe setback for your proposed building based on the conditions in your location. Permitting will be based on this calculated setback and will depend on the specific characteristics of your parcel. In some cases, property owners who use approved stabilization measures may reduce their required setback. Contact the Planning & Zoning Department to discuss stabilization plans.

## Determining a Safe Setback Distance

On the website, the setback calculator will determine a safe setback by combining three separate components:

**Recession Setback**—The number of feet your shoreline is likely to recede during 60 years (the expected lifetime of a structure) based on the known past recession rate in your area.

**Stable Angle Setback**—The distance your bluff will recede before it reaches a stable angle. To determine this setback, you will need to know the **current angle** of your bluff and the **stable slope angle**. The Setback Calculator and the Bayfield County Planning & Zoning Department can help you determine this.

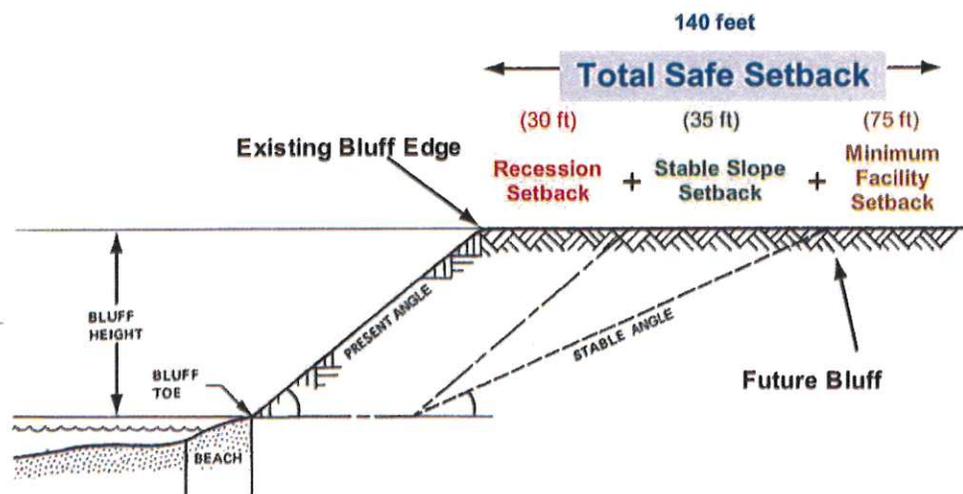
**Minimum Facility Setback**—The distance between your structure and the *future* edge of the bluff. If you include only the first two setbacks above, your structure may be perched right on the edge of the bluff after 60 years. The minimum setback allows a buffer between your building and the future shoreline.

**The Total Safe Setback distance is determined by combining these three distances:**

$$\text{Recession Setback} + \text{Stable Slope Setback} + \text{Minimum Facility Setback} = \text{Total Safe Setback}$$

### Example:

In the parcel shown at right, the Recession Rate is determined to be 1/2 foot per year. Therefore, the Recession Setback (the recession expected in 60 years) is **30 feet**. The Stable Slope Setback is calculated to be **35 feet** and the Minimum Facility Setback is **75 feet**. Combining all three gives a required setback of **140 feet**.



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WISCONSIN COASTAL  
MANAGEMENT PROGRAM

Compliments of: The Bayfield County Planning & Zoning Department 715.373.6138 or [www.bayfieldcounty.org/zoning](http://www.bayfieldcounty.org/zoning)

## MEMORANDUM

**TO:** Honorable Members of the Senate Committee on Natural Resources and Energy

**FROM:** Sarah Diedrick-Kasdorf, Deputy Director of Government Affairs  
Dan Bahr, Government Affairs Associate

**DATE:** January 19, 2016

**SUBJECT:** Support for Senate Bill 477

The Wisconsin Counties Association (WCA) supports Senate Bill 477, which relates to restrictions in a county shoreland zoning ordinance on activities within the shoreland setback area. Senator Devin LeMahieu and Representative Adam Jarchow drafted Senate Bill 477 at the request of the Wisconsin Counties Association as a follow up to changes made to county shoreland regulations in 2015 Wisconsin Act 55. Senate Bill 477 addresses the following issues:

**Setback Averaging:** Counties will continue to use the NR 115, 75-foot setback from the ordinary high watermark (OHWM) as a general rule. However, if principal structures exist on adjacent lots and within 250 feet of a proposed principal structure in both directions along the shoreline, the setback distance may be reduced to the average of the setbacks on each adjacent lot, but no less than 35 feet.

In addition, Senate Bill 477 also states that if principal structures exist on adjacent lots and within 200 feet of a proposed principal structure in both directions along the shoreline and both are set back more than 75 feet from the OHWM at the setback that was required at the time each was built, the county shoreland zoning ordinance may establish a setback equal to the average of the distance the neighboring principal structures are set back from the OHWM.

**Non-Conforming Structures:** Allows for limitation of the expansion of a non-conforming structure being replaced within the 75-foot setback to the original three-dimensional envelope.

**Height Limitations:** Allows a county to limit the replacement of a “dry boathouse” within the 75-foot setback within the original three-dimensional envelope.

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**Impervious Surfaces:** Senate Bill 477 requires the Department of Natural Resources shoreland zoning standards to prohibit a roadway or sidewalk from being considered an impervious surface. The bill also makes adjustments to impervious surface standards for areas that are not highly developed.

Thank you for considering our comments. Please feel free to contact WCA for further information.