

Shoreland Ordinance 2016

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Rusk County Zoning Administrator

with credits to
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Center for Land Use Education

Shoreland Zoning
Protecting lakes through a partnership between citizens, lake associations, county zoning staff, county boards, DNR, UW-Extension and more

Shoreland zoning history

- The Wisconsin Constitution, adopted in 1848, said navigable waters are "common highways and forever free"
- This led to "The waters of WI" which is the basis of the Public Trust Doctrine
- State of WI has obligation to protect the public's rights in all navigable waters including boating, fishing, swimming & hunting
- Shoreland zoning, adopted in 1966, is to protect our lakes and rivers

s. 281.31 Wisconsin Statutes




See short video: **Champions of the Public Trust** dnr.wi.gov/topic/waterways/about_in/Doctrine.htm

Purposes of shoreland zoning include...

- Prevent and control water pollution
- Protect spawning grounds, fish and aquatic life
- Reserve shore cover and natural beauty

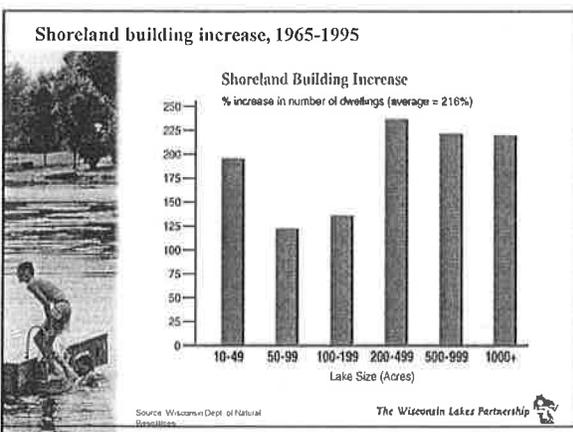




s. 281.31 Wis. Stats.

Shoreland Zoning History

- 1968 – set minimum standards
- Counties could be more protective or restrictive with the standards to effectively manage the resources relevant to their geographical location and development pressures.
- Many counties had the minimums until...



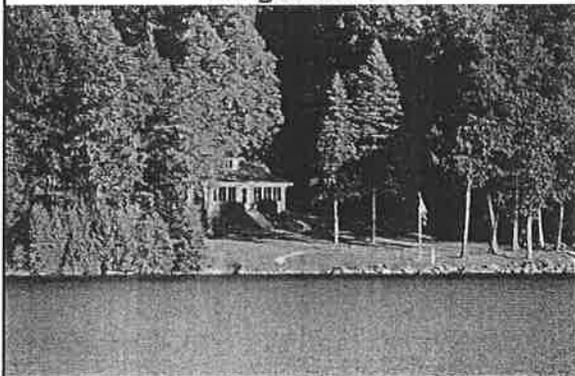
Why minimum lot sizes?

- Limit intensity of development to something that won't degrade the lake or river
- Each shoreland lot typically has
 - Tree removal
 - Filling and grading
 - Driveways, parking areas and buildings
- Allow adequate room on the lot for septic systems, wells, and the structure to meet required spacings
 - Wells 50' away from sanitary systems
 - Sanitary systems 50' back from OHWM

75 foot wide lots



Larger lots



Effects of lot sizes

Higher standards by some counties
 300 foot lots
 22 homes



Effects of lot sizes

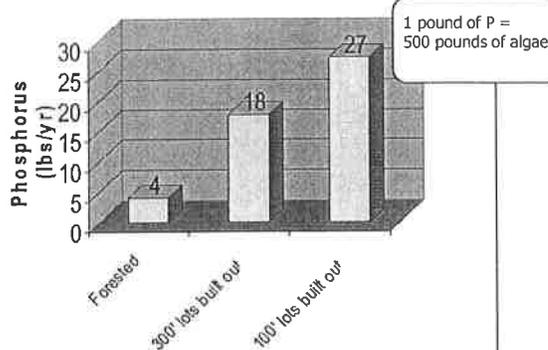
Current statewide shoreland standards

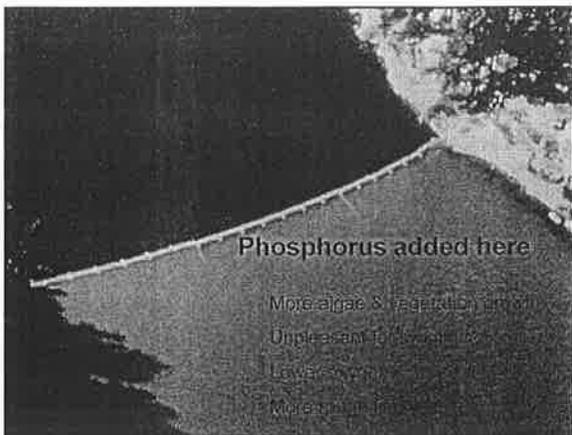
Unsewered
 100 foot lots
 66 homes

Sewered
 65 foot lots
 105 homes



More development = More Phosphorus



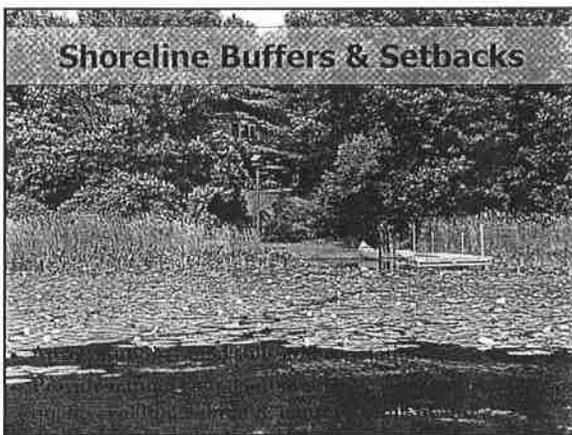


43 counties adopted larger shoreland minimum lot sizes prior to 2015 for some or all of their lakes or streams

Shoreland lot size standards are one-size-fits-all statewide

- 20,000 square feet and 100' wide – unsewered
- 10,000 square feet and 65' wide – sewerd

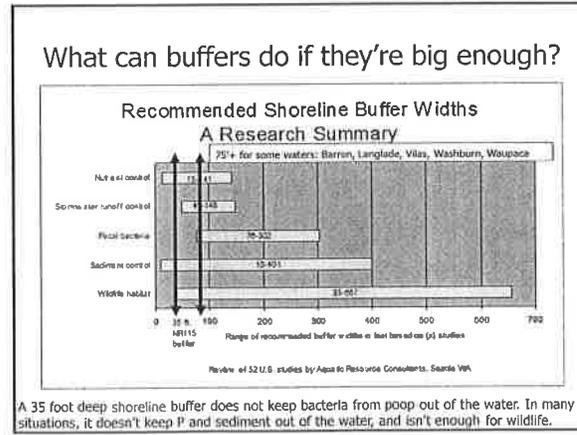
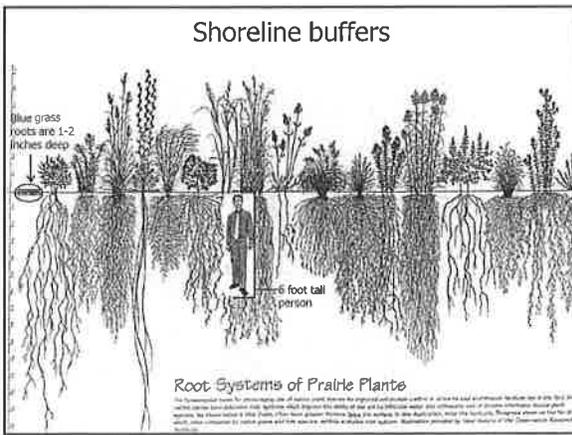
Counties may require larger lots under general zoning or subdivision ordinances, but not under shoreland zoning



What happens when a shoreline is clear cut?

Developed sites in Vermont

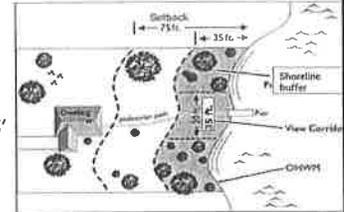
- Shoreline bank is destabilized, resulting in loss of land
- Soil erosion covers spawning beds, reduces fish habitat, and feeds algae growth
- Loss of shade leads to warmer water temperatures, especially in streams
- Loss of habitat for birds, frogs and other wildlife
- Loss of natural scenic beauty



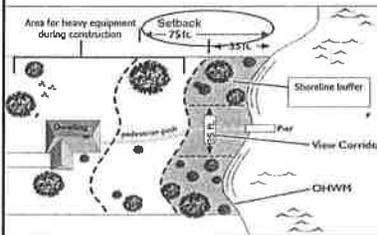


2015-16 buffer changes

- Counties may not require buffers larger than 35'
- Viewing corridor in buffer increased to 35' in every 100'



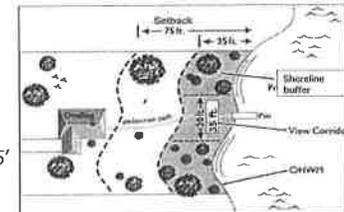
Why shoreline setbacks?



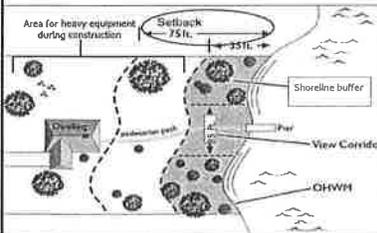
- To keep the home/structure on stable ground
- To keep the shoreline buffer intact during and after home construction
- To reduce pollutant-carrying runoff entering lake or stream
- To maintain habitat for birds and other wildlife, and natural scenic beauty

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Setback Averaging



Rusk County removed setback averaging in 1995 and added a reduced setback clause which assisted property owners with substandard lots to be able to build a 30' deep home.

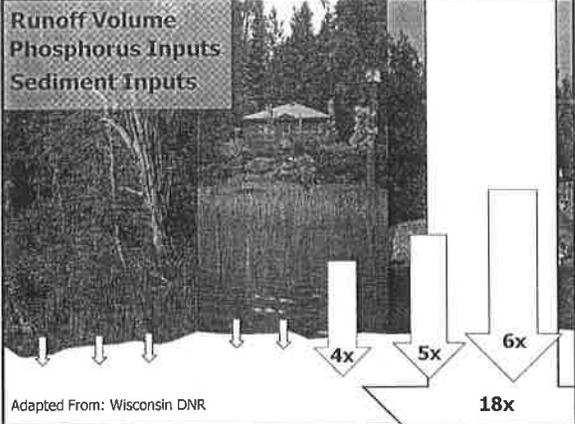
New standards require counties to setback average if there are nonconforming principal structures on the 2 adjacent lots – within 250' of proposed building. Setback shall not be less than 35'.



Effects of impervious surfaces
(based on the last 20 years of research)

- IS prevent water from soaking into the ground, which is the cool groundwater that enters lakes and streams during dry periods

Runoff Volume
Phosphorus Inputs
Sediment Inputs



Adapted From: Wisconsin DNR

More Impervious Surface = Less Fish

Fish found in streams when impervious surface in the watershed was:

Less than 10%	6 - 12%	Greater than 12%
<ul style="list-style-type: none"> Small darter Blue & copper darters White perch Brook bass Hoplosternum Sand shiner Southern codfish dace 	<ul style="list-style-type: none"> Golden shiner Northern pike Longnose dace Bluntnose minnow Johnny darter Common shiner 	<ul style="list-style-type: none"> Creek chub Fathead minnow Green sunfish White sucker Brook stickleback

Current standards are 15%, 30%, 40% and 60%

Toward species of fish

Wang et al., JAWRA, 36:5, 1173-1189, 2000

More Impervious Surface = Less Fish

More impervious surface



- Larger and more frequent floods**
- Less groundwater** leads to lower stream flows & warmer water temperatures during dry periods

More Impervious Surface = Less Fish

- More runoff** from hot pavement and shingles makes the water hotter
- More nutrients** from soil and fertilizers result in less oxygen in the water, which fish need to survive



Trout are gone above 11% impervious
Northern pike are gone above 12% impervious

More Impervious Surface = Less Fish

- More sediments** and algae growth make it difficult for some predator species that hunt by sight to find their food
- More sediments** cover spawning beds of fish such as walleye and smallmouth bass, depriving eggs of oxygen



Rusk County has had impervious surface standards since 2000

Changes to Impervious Surface Standards

- All property owners may continue to keep their current level of impervious surfaces (same as 2010 law)
- For new impervious surfaces in any residential area:
 - 15% impervious without mitigation
 - 30% with mitigation
- When going beyond 15%, mitigation plan must include a survey by a Professional Land Surveyor
- When claiming a treated impervious surface exemption, plan must be submitted by a Professional Engineer.

Changes to Impervious Surface Standards

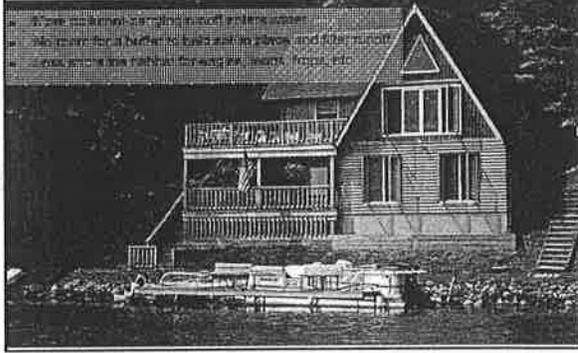
- Counties may allow higher percentages on lots with commercial, industrial or business land uses
 - 40% impervious without mitigation
 - 60% with mitigation
- Impervious surfaces are not counted toward the percentage impervious if the runoff from the impervious surface is treated by a device or system or is discharged to an internally drained pervious area on or off-site



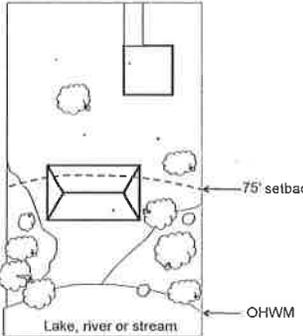
The closer a structure is to the shoreline ...the greater impact it has on the waterway



The closer a structure is to the shoreline ...the greater impact it has on the waterway



Structures not meeting 75' setback



- Red house does not meet shoreland setback
- Could be:
 - Nonconforming structure
 - Allowed by variance
 - Allowed by setback averaging
 - Illegal structure

Nonconforming Structures



- What is a nonconforming structure (NCS) for shoreland zoning purposes?
 - A structure that was lawfully placed when constructed but does not comply with the current required setback from the ordinary high water mark – legal pre-existing
- Regulating NCSs has always been a careful balancing act between property rights of the owner to keep what they have, and limiting expansion and rebuilding closer to the water than is allowed today for new structures, in order to maintain fairness and protect the lakes and rivers

Nonconforming Structures



- Nonconforming principal structures have always been allowed unlimited maintenance and repair, and sometimes limited expansion
- Prior to 2015, if a NCS was destroyed by violent wind, vandalism, fire, flood or infestation state law made it clear that the structure could be rebuilt to the same size in the same location
- When a NCS reached the end of its useful life and a new home was proposed, if there was room on the lot to build at the current shoreland setback, this was required, just like for other new homes

Structures allowed by Variance

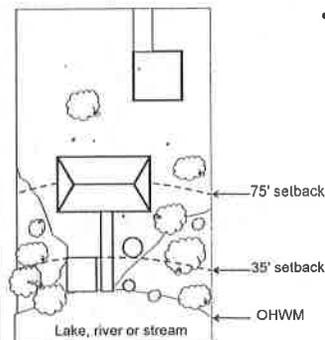


- Structures may be allowed at less than the shoreland setback by variance if there is no building location on the lot that meets the setback
- Shoreland variances are decided on a case-by-case basis by the county zoning board of adjustment

2015-16 changes

- Nonconforming Structures can be replaced in their current location if the activity does not expand the footprint – height limitation is 35'
- 200 sq ft addition within setback area over the life of the structure is permitted. Unlimited expansion beyond setback is permitted.
- Remember that a determination must be made whether the building is nonconforming. Any unpermitted building or additions built since 1971 will not be considered nonconforming. A structure would not be nonconforming if permitted at a compliant setback and now does not meet the setback permitted.

Structures exempt from 75' setback



- Exempt from 75' setback
 - Boathouses above OHWM
 - Walkways, stairways, or rail systems necessary to access the shoreline
 - Open-sided and screened structures (gazebos) at least 35' back
 - Broadcast signal receivers
 - Utility transmission and distribution lines, pole, tower, well pumphouse covers, POWTS
 - Fishing rafts under 30.126
 - New: Systems used to treat runoff from impervious surfaces
 - New: Utilities authorized by DNR
 - DISCUSS PATIOS

Mitigation



- Allows development flexibility in exchange for shoreland stewardship practices
- Proportional to project
- Applies for:
 - Exceeding minimum Impervious standards
 - Lateral expansion or relocation of NCS

Additional Changes

- Riparian Access – (existing requires 100' of frontage for each unit or lot) – proposed allows 3 backlots to have access with restrictions.
- Limiting use of travel trailers on private property to one camper instead of three. Requiring an annual fee for campers not in a campground.
- Adding standards for Tourist Rooming Houses.
- Requiring a Conditional Use Permit for garages or accessory buildings that are proposed on a lot with no principal structure and the owner doesn't live within five miles of the property.

Does shoreland zoning work?

Statewide standards (Maine)

Maine requires that towns adopt a shoreland zoning ordinance at least as restrictive as the model ordinance developed by the state with the State of Maine. This model ordinance includes a 300-foot setback for buildings, and keeping trees and other growing plants and shrubs in place between buildings and the lake.



No statewide standards (Vermont)

Vermont has no minimum shoreland standards, leaving the responsibility to craft an ordinance to town officials. Often, all of the trees, shrubs and groundcover is removed near the water's edge, the lot is leveled, and buildings, downspouts, and patios are built close to the shoreline. Seawalls are sometimes installed to stabilize the banks that were destabilized by the removal of the natural trees and shrubs.



Can we develop a lakeshore and protect the lake?

3 measures of lake health	Minimum Standard using Maximum Allowable	Are minimum standards being exceeded (Minimum)	Why are these measures important?
Shoreline trees	✓		Reefs, whiffs and ground cover near the shoreline provide: • Erosion control • Shade to water near shore • Habitat for deer and other wildlife
Large woody structures	✓		Large woody structures provide: • Habitat for fish and other aquatic life • Shade to water near shore • Habitat for birds and other wildlife
Medium woody structures	✓		Medium woody structures provide: • Habitat for fish and other aquatic life • Shade to water near shore • Habitat for birds and other wildlife
Small woody structures	✓		Small woody structures provide: • Habitat for fish and other aquatic life • Shade to water near shore • Habitat for birds and other wildlife
Leaves in the water	✓		Leaves in the water that enter rivers (that flow)
Quality of lake bottom silt/sand, not covered by sand	✓		High silt/sand can prevent a lake's surface from being healthy for fish, which may affect water quality.
Shoreline not covered by vegetation	✓		Shoreline not covered by vegetation can affect water quality.
Small animals and plants growing on shoreland	✓		Small animals and plants growing on shoreland can affect water quality.
Impervious % shoreland	✓		Impervious % shoreland can affect water quality.

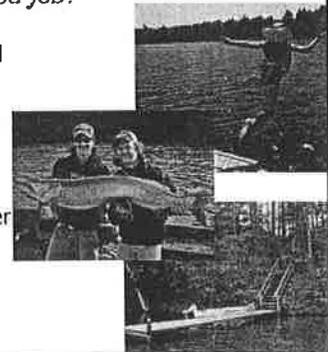
Review

- The quality of a lake or river depends on what's happening on the land around it
- Shoreland zoning can be an effective tool to protect lake health and fisheries
- From 1968-2015 the state set minimum shoreland standards, and at least 43 counties adopted higher standards for their local lakes and streams
- In July 2015, the WI Legislature set one-size-fits-all shoreland standards statewide. Counties are no longer allowed to have higher standards.

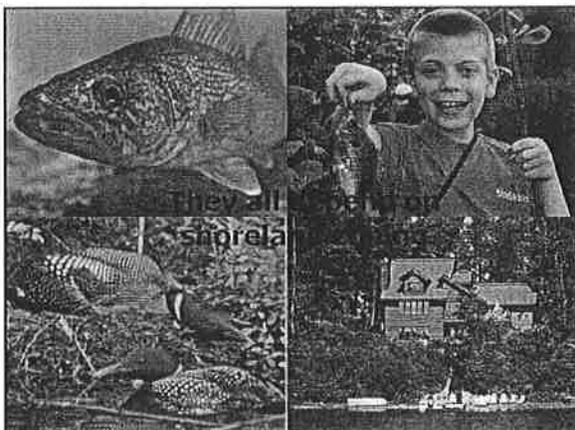


Purposes of shoreland zoning include... Are we doing a good job?

- Prevent and control water pollution
- Protect spawning grounds, fish and aquatic life
- Reserve shore cover and natural beauty



s. 281.31 Wis. Stats.



Questions? Comments?

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