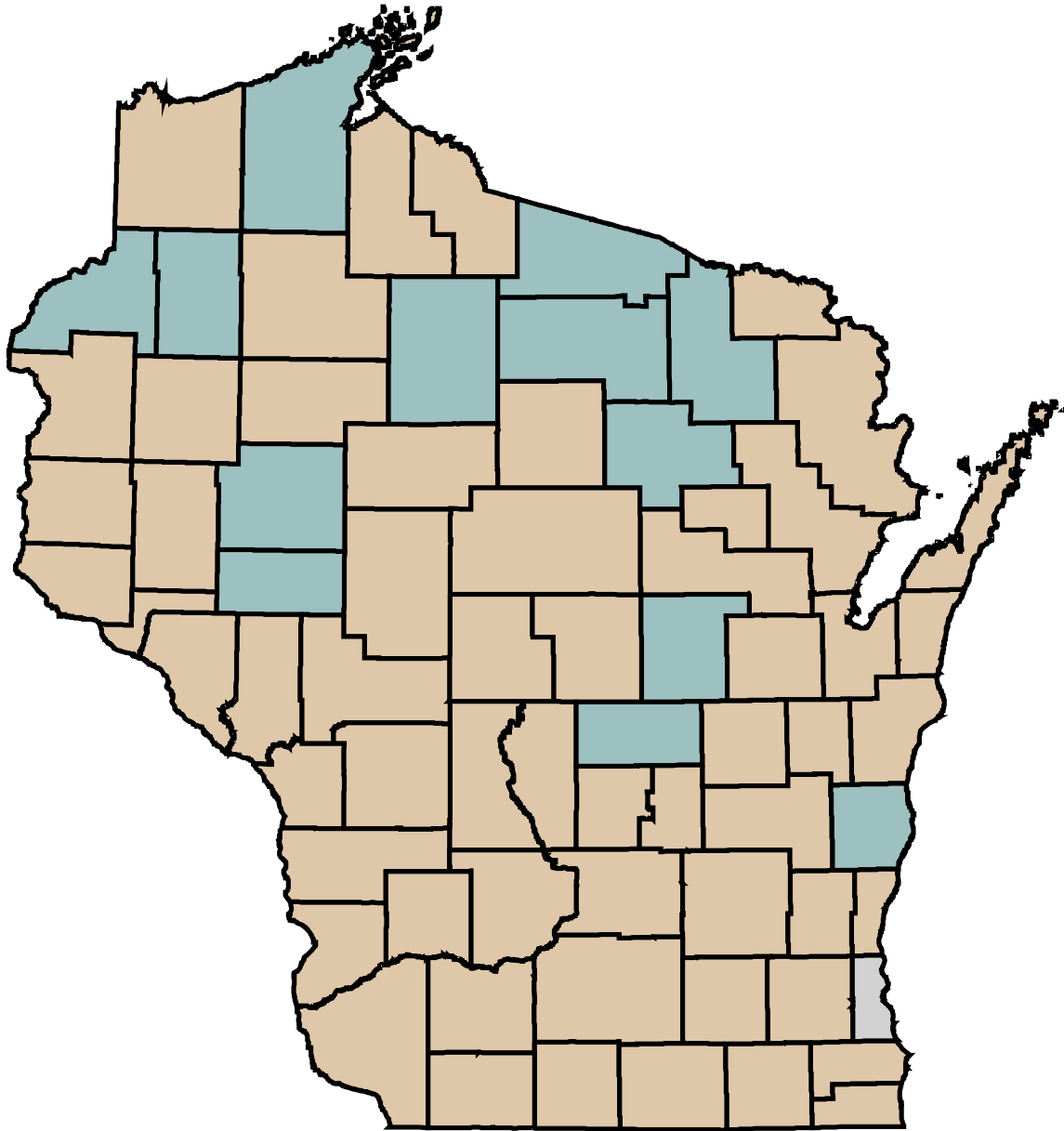


Shoreland Mitigation Standards



County is not regulated under NR 115.



County does not require shoreland mitigation.



County requires shoreland mitigation when constructing, altering or remodeling new or existing structures.



SHORELAND MITIGATION ISSUE SUMMARY

MANAGEMENT RATIONALE

Shoreland mitigation is a technique being used by many communities to balance a property owner's rights with those of the public. Mitigation may be required for the construction of a new structure, additions to existing structures or other shoreland alterations.

Shoreland mitigation is designed to minimize the impacts of shoreland development and to compensate for lost buffer functions. A main component of mitigation involves the restoration and/or preservation of shoreland buffers. Mitigation requirements may also include removal of nonconforming structures, using natural or earth-toned building materials or upgrading of septic systems. Mitigation allows the restoration of a natural shoreline and its functions including:

- a buffer zone to filter runoff and provide wildlife habitat,
- a shoreline rich in diverse vegetation and groundcover,
- a shoreline with a healthy aquatic community structure, and
- a shoreline with dwellings and other structures that are unobtrusive and blend into the natural surroundings.

MINIMUM STATEWIDE STANDARDS

There are no statewide standards on shoreland mitigation, but it is a tool being used by many communities achieve the goals of Wisconsin's Shoreland Management Program. While shoreland buffers are required by Wisconsin's Administrative Code Chapter NR 115, the vegetation cutting standards are difficult to interpret and enforce, often leading to inadequate buffers. Mitigation is one step communities have taken to strengthen their vegetation protection standards.

In recent legislation (1999 – 2001 Biennial Budget), section 59.692(1v), Wis. Statutes, was created which requires restoration of a shoreland buffer, but only when an open or screened structure no larger than 200 square feet is constructed within the shoreland setback area.

RELATED RESEARCH

The benefits of natural and restored shorelines have been well documented. A California study found that homes near stream restoration projects have a 3 to 13% higher property value than similar homes located on unrestored streams. The perceived value of the restored streams included the enhanced buffer, habitat and recreation opportunities resulting from the restoration (Streiner and Loomis 1996). Regional economic surveys have found that conserving forests can enhance property values by an average of 6 to 15% and increase the rate at which units are sold or leased (Morales 1980 and Weyerhauser 1989).

Restoring shoreland buffers, and by extension, their functions, has many ecological benefits as well. A healthy buffer fulfills many functions including:

- regulating water temperatures for fish communities,
- providing foraging, nesting and basking sites for wildlife,
- preventing shoreline erosion and maintaining channel stability, and
- filtering sediment and nutrients from runoff (Bernthal 1997).

For further information regarding shoreland buffer functions, refer to Chapter 10 – Shoreland Vegetation Protection.

Natural shorelines also fill another important function that is often taken for granted – natural scenic beauty. The aesthetics of a shoreline may be an intangible concept, but many people often recognize when it has been degraded or lost. Some shoreland mitigation efforts have also included preserving or improving the visual quality of shorelines. Man-made elements are often seen as visual intrusions in a natural setting – they “grab” our attention and interrupt or upset the natural character of a setting.

It is possible however to reduce the obvious nature of man-made elements, especially those which may be prominently located. The contrast between natural and man-made elements can be reduced in a variety of ways, including:

- changing the color to camouflage the structure,
- reducing gloss or reflectivity,
- planting trees and shrubs to screen and shade the structure,
- reducing movement and activity near the element (e.g. flags, wind socks, lanterns, etc.),
- softening highly visible angularities or structural complexity,
- removing structural elements from ridge lines to reduce the contrast of silhouettes,
- adapting structural forms which reflect the local terrain,
- reducing artificial lighting, and
- keeping clearings and land disturbances to a minimum (Litton et al 1974).

Shoreland mitigation is a developing tool, and its utility will vary depending on the goals of the community. Its strength lies in its ability to meet both property owners needs and that of the public.

MANAGEMENT INITIATIVES

The requirements of mitigation vary from county to county but may include:

- evaluation and upgrade of the sanitary system to current standards, if necessary,
- removal of nonconforming or obtrusive accessory structures within the shoreland setback area,
- restoration of a functioning shoreland buffer area by re-establishing native shoreland vegetation,
- restoring aquatic habitat by adding brush bundles and downed trees for aquatic structure essential for the well being of an underwater community,
- installing and modifying exterior building materials of structures so that they are as visually unobtrusive as possible and blend into the natural surroundings, and
- implementation of standard erosion and storm water runoff control practices during construction.

Most counties require that a mitigation plan be approved by the zoning office and implemented before any permits are issued, or the work must be completed within one year of the permit issuance. Some counties rather than requiring implementation, instead require an implementation schedule as part of the mitigation plan.

Since the county is responsible for approving the mitigation plan, it is important that clear requirements of mitigation plans are defined. Some counties have established a list of minimum mitigative measures that would be applied in all instances, as well as additional measures that may be necessary based on specific site conditions.

Mitigation is intended to minimize the impacts of development and to compensate for lost buffer functions. An important factor for communities to consider is how these measures will be maintained as properties change hands. Some counties are recording affidavits or deed restrictions. Others are simply requiring any mitigation to be for perpetuity.

CONSIDERATIONS

- What is the intent of the mitigation process in your community? Addressing nonconforming structures? Preserving shoreland buffers? Enhancing natural scenic beauty?
- What actions will be required for mitigation?
- How do the mitigation requirements relate to your community's existing shoreland buffer requirements? Are mitigation requirements tied into other ordinance requirements, such as grading or erosion and stormwater control?
- How will the mitigation program be implemented? Enforced?
- How will the program be documented? Deed restrictions? Affidavits?

BIBLIOGRAPHY

Bernthal, T. 1997. *Effectiveness of shoreland zoning standards to meet statutory objectives: a literature review with policy implications*. Dam Safety, Floodplain and Shoreland Section, Bureau of Watershed Management, Wisconsin Department of Natural Resources. Madison, WI.

Litton, R., R. Tetlow, J. Sorenson and R. Beatty. 1974. *Water and landscape: an aesthetic overview of the role of water in the landscape*. Water Information Center, Inc. Port Washington, NY.

Morales, D. J. 1980. The contribution of trees to residential property values. *Journal of Arboriculture* 6(11): 301-302.

Streiner, C. and J. Loomis. 1996. *Estimating the benefits of urban stream restoration using the hedonic price method*. Department of Agriculture and Resource Economics. Colorado State University.

Weyerhaeuser Company. 1989. *The value of landscaping*. Weyerhaeuser Nursery Products Division. Tahoma, WA.

Abbreviations used in the following table are:

BMP = Best management practices
LOP = Location and occupancy permit
NC = Nonconforming or nonconformity
NCAS = Nonconforming accessory structure
NCPS = Nonconforming principal structure
NCS = Nonconforming structure
OHWM = Ordinary high water mark
VAC = Viewing access corridor
ZA = Zoning Administrator

Shoreland Mitigation Standards

<i>County</i>	<i>What actions require mitigation?</i>	<i>How is county implementing mitigation system?</i>	<i>What is required for mitigation?</i>
Adams	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Ashland	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Barron	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Bayfield	Reduced setbacks for substandard lots, improvements to shoreland setback NCS & damaged or destroyed shoreland NCS repairs.	Site plan & implementation schedule of mitigation must be approved by Zoning Dept. prior to issuing related land use permit(s).	Upgrade sanitary system, if needed, implement erosion control practices & earn a min. of 4 points for restoring or maintaining a shoreline buffer, removing NCAS, using inconspicuous bldg. materials, meeting shoreland exterior lighting requirements, etc.
Brown	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Buffalo	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Burnett	Improvements and additions to nonconforming structures.	Property owner implements a plan approved by County Land Conservationist to restore shoreline buffer	As part of mitigation, existing nonconforming accessory structures are removed & a shoreline buffer plan is implemented.
Calumet	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Chippewa	Expansion of legal NCS.	If property not compliant w/ shoreland cutting regulations, restoration required.	Restoration plan must be submitted & completed w/i one year of permit issuance.
Clark	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Columbia	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Crawford	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Dane	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Dodge	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Door	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Douglas	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Dunn	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Eau Claire	Reconstruction or repair of NCS.	Develop mitigation plan for adverse effects of NCS & submit to County w/ implementation schedule.	Private onsite sanitary system up to code, 35' natural vegetation buffer restored to code req., ext. bldg. materials visually neutral or inconspicuous, etc.

County	What actions require mitigation?	How is county implementing mitigation system?	What is required for mitigation?
Florence	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Fond du Lac	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Forest	Additions to structures which req. a reduced setback & repair or reconstruction of any damaged or destroyed NCS.	Plan to mitigate shall be developed & submitted prior to any repair or reconstruction. Plan shall be approved by ZA prior to issuance of permit & shall include an implementation schedule.	Plan req. sanitary system to be brought up to code, restore buffer of native vegetation & w/ 5 years provide min. 60% visual screening of NCS from water, meet impervious surface limits & visually inconspicuous exterior building materials.
Grant	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Green	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Green Lake	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Iowa	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Iron	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Jackson	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Jefferson	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Juneau	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Kenosha	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Kewaunee	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
La Crosse	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Lafayette	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Langlade	Construction of a new, or an addition to a, principal structure.	Requires plan with site location, description, materials list, timetable, erosion control & photos	Restoration includes ground cover, shrubs & trees. Restore entire buffer to extent practicable & at densities to restore shoreline functions.
Lincoln	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Manitowoc	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Marathon	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Marinette	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.

<i>County</i>	<i>What actions require mitigation?</i>	<i>How is county implementing mitigation system?</i>	<i>What is required for mitigation?</i>
Marquette	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Menominee	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Monroe	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Oconto	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Oneida	(Re)construction, alteration, or repair on existing nonconforming structures & new boathouses.	Approved mitigation plan submitted to Planning & Zoning Dept & implemented w/i 1 yr of LOP.	Requires plan to bring sanitary systems w/i 75' of OHWM to current standards, a buffer zone parallel to OHWM, removal of fill, rock & construction materials from site & buffer zones on side lot lines.
Outagamie	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Ozaukee	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Pepin	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Pierce	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Polk	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Portage	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Price	Improvement or expansion of NCPS, NCS damaged or destroyed by wind, fire, etc.,	ZA approves plan prior to issuance of zoning permit & to be implemented concurrently with construct.	Sanitary system brought up to standard. NCAS <\$2000 removed. Shoreline buffer restored (if structure demolished, w/i 5 yrs. 75% of NCS screened from water by vegetation.) Ext. bldg. materials visually inconspicuous.
Racine	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Richland	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Rock	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Rusk	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
St. Croix	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Sauk	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Sawyer	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Shawano	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.

<i>County</i>	<i>What actions require mitigation?</i>	<i>How is county implementing mitigation system?</i>	<i>What is required for mitigation?</i>
Sheboygan	Reconstruction of NCS destroyed or damaged after 10/14/97 by violent wind, fire, flood or vandalism.	Permit application incl. plan to mitigate adverse effects of NC & implementation schedule.	Compliant septic system. Req. landscape plan to control erosion & screen NCS from water. Bldg. materials visually inconspicuous. Remove excess fill, rocks, or materials. Use BMP erosion controls.
Taylor	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Trempealeau	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Vernon	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Vilas	Construction on waterfront lot w/i 300' of OHWM & involves >300 s.f. of new or existing structure.	Point system relating to Lake Classification system, i.e. lakes 50 acres & less require 6 points.	Points earned through creation of buffer zones, removal of structures, and restoration or protection activities like stormwater detention basins, removal of beaches, etc. Mitigations are in perpetuity.
Walworth	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Washburn	Improve or expand NCS, CPS expand >50%, exist. struct. removed & replaced OR a setback reduction.	Mitigation plan & implementation schedule submitted to Zoning Dept. for approval.	Wastewater treatment system upgraded as needed. Nat. vegetation & functions of buffer restored as practicable - min. 35' buffer w/ 30' VAC. Remove NCAS. Implement erosion & runoff control measures.
Washington	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Waukesha	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Waupaca	Improvement or expansion of principal structures essential for reasonable use of property.	Req. practices & also point system w/ selection of practices (chose want you want to earn points).	Req. up-to-date wastewater treatment system & implementation of stormwater & erosion control measures. Points earned by restoring buffers, removing NCS, using earthtone colors, etc.
Waushara	Removal of shore cover beyond ordinance standards.	Req. plan prepared by qualified professional & Zoning Dept. approval.	Plan must screen uses from water, maintain a stable bank & shore, retard flow of pollutants & protect aesthetic values.
Winnebago	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Wood	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.

Shoreland Mitigation Standards

<i>County</i>	<i>What actions require mitigation?</i>	<i>How is county implementing mitigation system?</i>	<i>What is required for mitigation?</i>
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Barron	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Bayfield	Reduced setbacks for substandard lots, improvements to shoreland setback NCS & damaged or destroyed shoreland NCS repairs.	Site plan & implementation schedule of mitigation must be approved by Zoning Dept. prior to issuing related land use permit(s).	Upgrade sanitary system, if needed, implement erosion control practices & earn a min. of 4 points for restoring or maintaining a shoreline buffer, removing NCAS, using inconspicuous bldg. materials, meeting shoreland exterior lighting requirements, etc.
Brown	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Buffalo	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Burnett	Improvements and additions to nonconforming structures.	Property owner implements a plan approved by County Land Conservationist to restore shoreline buffer	As part of mitigation, existing nonconforming accessory structures are removed & a shoreline buffer plan is implemented.
Calumet	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Chippewa	Expansion of legal NCS.	If property not compliant w/ shoreland cutting regulations, restoration required.	Restoration plan must be submitted & completed w/i one year of permit issuance.
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Dunn	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Eau Claire	Reconstruction or repair of NCS.	Develop mitigation plan for adverse effects of NCS & submit to County w/ implementation schedule.	Private onsite sanitary system up to code, 35' natural vegetation buffer restored to code req., ext. bldg. materials visually neutral or inconspicuous, etc.

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Fond du Lac	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Forest	Additions to structures which req. a reduced setback & repair or reconstruction of any damaged or destroyed NCS.	Plan to mitigate shall be developed & submitted prior to any repair or reconstruction. Plan shall be approved by ZA prior to issuance of permit & shall include an implementation schedule.	Plan req. sanitary system to be brought up to code, restore buffer of native vegetation & w/1 5 years provide min. 60% visual screening of NCS from water, meet impervious surface limits & visually inconspicuous exterior building materials.
Grant	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Green	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Green Lake	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Iowa	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
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Jefferson	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
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Kewaunee	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
La Crosse	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Lafayette	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Langlade	Construction of a new, or an addition to a, principal structure.	Requires plan with site location, description, materials list, timetable, erosion control & photos	Restoration includes ground cover, shrubs & trees. Restore entire buffer to extent practicable & at densities to restore shoreline functions.
Lincoln	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Manitowoc	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Marathon	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Marinette	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.

County	What actions require mitigation?	How is county implementing mitigation system?	What is required for mitigation?
Marquette	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Menominee	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Monroe	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Oconto	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Oneida	(Re)construction, alteration, or repair on existing nonconforming structures & new boathouses.	Approved mitigation plan submitted to Planning & Zoning Dept & implemented w/i 1 yr of LOP.	Requires plan to bring sanitary systems w/i 75' of OHWM to current standards, a buffer zone parallel to OHWM, removal of fill, rock & construction materials from site & buffer zones on side lot lines.
Outagamie	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Ozaukee	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Pepin	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Pierce	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Polk	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Portage	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Price	Improvement or expansion of NCPS, NCS damaged or destroyed by wind, fire, etc.,	ZA approves plan prior to issuance of zoning permit & to be implemented concurrently with construct.	Sanitary system brought up to standard. NCAS <\$2000 removed. Shoreline buffer restored (if structure demolished, w/i 5 yrs. 75% of NCS screened from water by vegetation.) Ext. bldg. materials visually inconspicuous.
Racine	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Richland	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Rock	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Rusk	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
St. Croix	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Sauk	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Sawyer	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Shawano	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.

<i>County</i>	<i>What actions require mitigation?</i>	<i>How is county implementing mitigation system?</i>	<i>What is required for mitigation?</i>
Sheboygan	Reconstruction of NCS destroyed or damaged after 10/14/97 by violent wind, fire, flood or vandalism.	Permit application incl. plan to mitigate adverse effects of NC & implementation schedule.	Compliant septic system. Req. landscape plan to control erosion & screen NCS from water. Bldg. materials visually inconspicuous. Remove excess fill, rocks, or materials. Use BMP erosion controls.
Taylor	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Trempealeau	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Vernon	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Vilas	Construction on waterfront lot w/i 300' of OHWM & involves >300 s.f. of new or existing structure.	Point system relating to Lake Classification system, i.e. lakes 50 acres & less require 6 points.	Points earned through creation of buffer zones, removal of structures, and restoration or protection activities like stormwater detention basins, removal of beaches, etc. Mitigations are in perpetuity.
Walworth	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Washburn	Improve or expand NCS, CPS expand >50%, exist. struct. removed & replaced OR a setback reduction.	Mitigation plan & implementation schedule submitted to Zoning Dept. for approval.	Wastewater treatment system upgraded as needed. Nat. vegetation & functions of buffer restored as practicable - min. 35' buffer w/ 30' VAC. Remove NCAS. Implement erosion & runoff control measures.
Washington	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Waukesha	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Waupaca	Improvement or expansion of principal structures essential for reasonable use of property.	Req. practices & also point system w/ selection of practices (chose want you want to earn points).	Req. up-to-date wastewater treatment system & implementation of stormwater & erosion control measures. Points earned by restoring buffers, removing NCS, using earthtone colors, etc.
Waushara	Removal of shore cover beyond ordinance standards.	Req. plan prepared by qualified professional & Zoning Dept. approval.	Plan must screen uses from water, maintain a stable bank & shore, retard flow of pollutants & protect aesthetic values.
Winnebago	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.
Wood	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.	Not incorporated into county's shoreland zoning ordinance.

Shoreland Mitigation Ordinance Language

LANGLADE COUNTY

17.30 ZONING STANDARDS FOR USE OF SHORELANDS ALONG NAVIGABLE WATERS.

(6) **Vegetation Protection Area.** (Amend. #6-98) There shall be a shoreline vegetation protection area on each lot which shall extend from the ordinary high water mark to a line which is 25 feet less than the required shoreline setback for structures. Within this area the removal of trees, shrubs and groundcover, filling and land disturbing activities are prohibited with the following exceptions:

(a) Pier, wharf and, where permitted, boathouse and related marine railway construction provided such construction is located within the viewing corridor described in Section 17.30 (6) (e) unless such location is not feasible due to steep slopes, wet soils, or similar limiting conditions.

(b) One pedestrian access pathway to shoreline provided:

1. It is located within the viewing corridor described in Section 17.30 (6) (e) unless such location is not feasible due to steep slopes, wet soils or similar limiting conditions.

2. It is located and constructed so as to avoid erosion;

3. It is located and constructed so as to maintain some screening of development from view of water;

4. It is the minimum construction necessary to provide access and includes no additional construction other than railing essential for safety;

5. It is no more than 4 feet wide; and

6. It is constructed of materials with colors which blend with the natural ground cover in the vicinity of the pathway.

An elevated walkway or powered lift may be substituted for a pedestrian access path if:

1. It is essential to access the shore because of steep slopes, wet soils or similar limiting conditions;

2. It complies with the standards for location and construction of pathways described in Section 17.30 (6) (b) (1-6); and

3. Construction plans are approved by the Land Records and Regulation Department.

(c) Shoreline protection activities authorized by a state permit and erosion control measures approved by the Land Records and Regulation Department which are designed to remedy significant, existing erosion problems.

(d) Removal of dead and diseased trees which are a safety hazard or which threaten structures,

(e) Establishment of one viewing corridor for each minimum lot width by selective pruning and selective removal of trees and shrubbery. Clearing, filling, grading and other land disturbing activities are not permitted. Sufficient trees and shrubbery shall be retained to screen development from view from the water but provide a filtered view of the water. The viewing corridor shall be more or less perpendicular to the shore and no more than 30 feet wide in the dimension paralleling the shore.

(f) Construction of a collector system for a community waste disposal system provided there is no practical alternative location.

(g) Roadways adjacent to permitted stream crossings.

(h) A private boat launch and associated vehicular access in districts zoned for residential use provided there is no alternative launch facility. Commercial and public recreational facilities requiring a waterfront location provided a conditional use permit under Section 17.64 (3) is obtained. Such activities may also requires DNR permits.

These provisions are not intended to prevent the maintenance of lawns or landscaping prior to April 21, 1998. However, such lawns or landscaping may not be extended contrary to the provisions of this section. In shoreland areas located beyond the vegetation protection area, tree and shrub cutting shall be governed by consideration of sound forestry practices and soil conservation practices.

* * *

(13) **Shoreline Buffer Restoration**. An applicant for a zoning permit for construction of a new principal structure or an addition to an existing principal structure shall restore the water quality, habitat and natural beauty protection functions of the shoreline buffer area to the extent practicable.

1) **Plan Requirements**. An applicant shall submit a restoration plan for approval by the Land Records and Regulations Department prior to issuance of a zoning permit. The plan shall provide for the following:

a. Restoration shall extend throughout the vegetation protection area described in Section 17.30 (6) to the extent practicable;

b. Where site conditions permit, groundcover, shrub and tree layers of vegetation shall be reestablished;

c. Revegetation species shall be selected from a listing of native species maintained by the Land Regulation Department;

d. Vegetation shall be restored and maintained at densities that are adequate to reestablish the water quality, habitat and natural beauty protection functions of a shoreline buffer area;

e. Once the shoreline buffer has been reestablished, vegetation removal and land disturbing activities are generally prohibited except as permitted by applicable provisions of Section 17.30 (6), the vegetation protection area.

ONEIDA COUNTY

Section 9.512 Shoreland Mitigation (Amend. #576)

The construction, alteration, reconstruction or structural repair of such structures located in close proximity to our navigable waters can cause severe erosion, sedimentation, pollution and nutrient loading of such waters. Prior to such construction, alteration, reconstruction or structural repair, the land owner shall be required to submit a plan to mitigate the adverse effects of such structures as related to the buffer area for review and approval by the Planning and Zoning Department. The Planning and Zoning Department may require consultation with the Land Conservation Department, a certified arborist or landscaper prior to the issuance of a permit. A copy of the mitigation plan, or amendment there of shall be signed by the property owner, approved by the Department, filed with the Planning and Zoning Department and a Mitigation Affidavit recorded with the Register of Deeds prior to issuance of the Location and Occupancy Permit (LOP). Furthermore, mitigation plans shall be completed within one year of issuance of the related LOP.

The plan shall include an implementation schedule for the following requirements:

- A. Any sanitary system associated with a structure located within seventy-five feet (75') of the OHWM shall be brought up to current standards for new construction.
- B. A buffer zone at least thirty-five feet (35') from, and parallel to the ordinary high water mark shall be planted or restored and maintained with vegetation native to the area to the fullest practicable extent possible with effective and permanent erosion and sediment control. Existing natural beaches or beaches which have been or may be permitted by the DNR shall be allowed to be continued and maintained. In addition, the minimum vegetation density for trees shall be 1 per 200 sq. ft. evenly spaced with a minimum one inch (1") diameter, subject to the provisions of 9.52. The minimum vegetation density for shrubs shall be 3 per 200 sq. ft. evenly spaced, subject to the provisions of 9.52

- C. Excess fill, rock or materials associated with reconstruction or repair shall be removed from the site and may not be deposited within the seventy-five (75) foot setback area from the OHWM. The mitigation plan shall also be subject to any impervious surface limits, storm water and runoff control, and forestry and construction best management practices.
- D. A buffer zone at least ten feet (10') wide extending along each side lot line for a depth of at least seventy-five feet (75') from the ordinary high water shall be planted or restored and maintained with vegetation native to the area to the fullest practicable extent possible with effective and permanent erosion and sediment control. No cutting or mowing is permitted in this buffer zone. In addition, the minimum vegetation density for trees shall be 1 per 200 sq. ft. evenly spaced with a minimum one inch (1") diameter, subject to the provisions of 9.52. The minimum vegetation density for shrubs shall be 3 per 200 sq. ft. evenly spaced, subject to the provisions of 9.52.

Mitigation requirements A-D, shall be implemented for the following:

Properties requiring a permit under Section 9.30 (D), 9.32 (B) and meet the requirements of Section 9.90.

New boathouse construction on properties with existing principal buildings.

9.52 Vegetation Protection Area and Cutting of Trees and Woody Plants (Amend. #574)

Natural vegetation on land abutting lakes and streams protects scenic beauty, controls erosion, provide wildlife habitat, and reduced the flow effluents and nutrients from the shoreland into the water. To preserve these desirable features of the shoreline, there shall be maintained a shoreline vegetation protection area on each lot abutting a lake or stream which shall extend 35 feet from, and parallel to, the OHWM.

- 1. Vegetation removal, excavating, filling, and land disturbing activities within the vegetation protection area are prohibited with the following exceptions:
 - a. Construction permitted under Section 9.51 (A) shall be confined to the viewing area. Such structures which existed prior to May 19, 1999 shall be allowed to remain.
 - b. Pedestrian access walkways and/or lifts to the shoreline requiring removal of vegetation when permitted under Section 9.51 (C)(6). A walkway shall not be over five feet wide. A walkway may be allowed outside of the viewing area when authorized by a conditional use permit (CUP) justified by topography, soil, and existing vegetation.
 - c. Shoreline protection activities authorized by a state permit and erosion control measures approved by the County Land Conservation Department which are designed to remedy significant existing erosion problems.

d. A tree, or portion thereof, may be removed for one or more of the following reasons:

1. The tree, or portion thereof, is dead.
2. The tree is safety hazard to person or property.
3. The tree removal is for the purpose of preventing the spread of disease to other trees.

Whenever a tree is removed, it shall be replaced with another tree as defined in Section 9.130 and having a minimum DBH of 1 inch.

e. Viewing area in compliance with the following restrictions:

Each viewing area shall not exceed 30 feet in width. Walkways and lifts shall be confined to a viewing area unless otherwise allowed elsewhere under subsection 9.52 (A.)(1.)(b.) above.

No more than one viewing area shall be allowed in any 100 feet of frontage, or 30% of the lot width on lots less than 100 feet.

Viewing areas shall be established by pruning (not to exceed removal of 25% of live branches) and selective removal of trees and woody plants, leaving one square foot of basal area in the viewing area. Preference shall be given to retaining healthy trees and native trees. Sufficient natural trees and woody plants shall be retained to screen development from view of the water while providing a filtered view of the water from the lot during the summer season.

Clear cutting, filling, grading and other land disturbing activities are prohibited in the viewing area unless permitted by 9.52 (A.)(1.)(c.) above and 9.51 (C.)(4.).

f. Pruning of trees and woody shrubs outside of the viewing area for the health and/or renewal of vegetation. Such pruning shall not result in removal of more than 25% of the living crown of a tree, nor jeopardize the health and natural shape of a tree or shrub.

g. Private on-site waste disposal systems permitted under Oneida County Private Sewage Systems Ordinance.

With a CUP a collector system for a community waste disposal system provided there is no practical alternative location.

h. Permitted roadways adjacent to permitted stream crossings.

- i. With a CUP, private boat launch facilities in districts zoned for commercial use and in other districts where no launch facility is available on the water body, and with a CUP, publicly owned boat launch facilities, parks, and recreational facilities.
2. The following are restrictions within the vegetation protection area:

Timber harvesting. On parcels over five acres in size, limited harvesting is permitted, provided that an equivalent of 60 feet of basal area per acre of residual trees five inches and greater diameter at breast height (DBH), and at least 2.2 feet of basal area per lineal 50 feet of shoreline frontage, must remain after harvest.

Landings or slash piles are prohibited.

Establishment of new lawns and unnatural or non-native landscaping is prohibited.

3. In the shoreland area outside the vegetation protection area, trees and woody plants may be cut in accordance with accepted forest best management practices and sound soil conservation practices which protect water quality.

VILAS COUNTY

ARTICLE VIII: REMOVAL OF TREES AND SHORE COVER

8.1 Applicability.

This article applies to the removal of trees and vegetation on shoreland properties.
Note: *General Restrictions on Tree Removal are set forth in Section 5.13 of the Vilas County General Zoning Ordinances.*

8.2 Permitting Requirements.

A. General

1. All tree cutting exceeding the limitations of Section 8.3 requires a Shoreland Alteration permit from the Vilas County Zoning Office.
2. Tree cutting on more than 10 acres in a shoreland area also requires that the owner provide notice to the Vilas County Clerk's Office.

B. Exceptions

1. Shoreland Alteration and Zoning Permits are not required when logging is performed on public lands (State, Federal, County or Town) or managed lands in compliance with a Forest Law Program, or where cutting is performed by governmental bodies or public utilities.
2. This Article shall not apply to removal of dead, dying or diseased trees or shrubbery.

8.3 Limitations on Removal of Trees and Shore Cover.

A. Preservation of Trees and Vegetation.

Except as set forth in this section, natural shrubbery, trees and undergrowth shall be preserved as far as practicable on all shoreland properties, and if removed, it shall be replaced with vegetation that is equally effective in meeting the objectives of this ordinance.

B. Prohibition of Clear Cutting.

Clear cutting of trees shall be prohibited within 300 feet of a lake or within 150 feet of a river or stream other than for the following areas and purposes:

1. For the placement and maintenance of a building within thirty feet (30') of each exterior wall.
2. For the installation of a private septic system.
3. For the construction of a twenty feet (20') wide roadway from a public road or easement to the principal structure. Such roadway may not encroach on any setback.
4. For the thirty feet (30') x thirty-five feet (35') shoreline recreational area described in this section.

C. No Cut Zone.

Except as set forth in other Articles of this ordinance, no removal of trees, shrubs or undergrowth is permitted within 75 feet of the OHWM of a lake or stream.

D. Select Cut Zone.

Select cutting of trees between 75 and 300 feet from the OHWM of a lake or between 75 and 150 feet of the OHWM of a stream is permitted under the following conditions:

1. A basal area of 60 square feet per acre, DBH, evenly distributed shall be maintained.
2. Natural shrubbery, trees, and undergrowth shall be preserved as far as practicable within the select cutting areas.
3. The maximum slash height shall be 24 inches.

E. Creation of a Shoreline Recreational Area.

1. Except as set forth in ¶ E.2, one shoreline recreational area is allowed on each waterfront lot no larger than thirty feet (30') in width along the shoreline and extending 35 feet in depth from the OHWM. Select cutting of trees and shrubbery is permitted to create a shoreline recreational area if one does not exist naturally.
2. The shoreline recreational area for resorts, hotels or motels, or private clubs shall be no larger than thirty feet (30') in width along the shoreline for each one hundred feet (100') of shoreline frontage width for up to three hundred feet (300') of shoreline frontage width, plus an additional ten feet (10') of shoreline recreational area width for each additional hundred feet (100') of shoreline frontage width. For the purposes of mitigation only, such shoreline recreational areas may be contiguous or non-contiguous. Shoreline recreational areas shall only be created up to 35 feet in depth from the OHWM.

* * *

ARTICLE XI: MITIGATION

11.1 Applicability

Mitigation is required whenever a property owner requests a zoning permit for construction on a waterfront lot where the proposed construction is located less than 300 feet from the OHWM and involves greater than three hundred square feet (>300 sq. ft.) of any new or existing structure. Mitigation is not required for rebuilding a structure under ¶ 6.5.B. An additional permit fee may be required by the Zoning Office for administration of the mitigation requirements.

11.2 Mitigation Points Required

A. Lakes Greater Than 50 Acres.

The number of mitigation points required depends on lake classification and is set forth below in Table 4.

Table 4

MITIGATION POINTS for Lakes Greater than 50 Acres			
Sensitivity to Development	Current Level of Development		
	Low Development Level	Medium Development Level	High Development Level
High sensitivity	Five Mitigation Points	Six Mitigation Points	Six Mitigation Points
Medium sensitivity	Four Mitigation Points	Five Mitigation Points	Five Mitigation Points
Low sensitivity	Four Mitigation Points	Four Mitigation Points	Four Mitigation Points

B. For Lakes 50 Acres and Less Six Mitigation Points Are Required.

C. For Class II Rivers and Streams Four Mitigation Points Are Required.

D. For Class I Rivers and Streams Six Mitigation Points Are Required.

E. Additional Points for Certain Structures.

Additional mitigation points shall be required on properties with principal structures located closer than seventy-five feet (75') from the ordinary high water mark as follows:

1. Expansion of principal structures with any part located closer than forty feet (40') from the ordinary high water mark require two (2) additional mitigation points.
2. Expansion of a principal structure with any part located closer than seventy-five feet (75') but more than forty feet (40') from the ordinary high water mark require one (1) additional mitigation point. This point is not additive to the two mitigation points required if a structure is located closer than forty feet (40').

11.3 Mitigation Practices

Property owners may choose among the following mitigation practices to achieve the number mitigation points required.

A. Buffer Zones

1. Points may be obtained for maintaining existing buffer strips or for creating and maintaining new buffer zones as set forth below.
2. Buffer Zone Options.

- a. Primary Active Buffer Zone: Shore buffer zone within thirty-five feet (35') of the OHWM, including trees, shrubbery, underbrush and other natural vegetation, and subject to the conditions in ¶ A.3. Three (3) points. A shoreline recreational area as defined in Article VIII is allowed.
- b. Secondary Active Buffer Zone: An additional fifteen feet (15') of buffer zone depth inland from the OHWM beyond the thirty-five feet (35') of buffer zone already established, providing a total of fifty feet (50') of buffer zone depth, subject to the conditions in ¶ A.3. Two (2) points.
- c. Recreational Area Buffer Zone: Shore buffer zone along the entire shoreline, including within the space that may otherwise have been occupied by the recreational area, except that a foot path of no more than six feet (6') in width may be maintained, subject to conditions in ¶ A.3. Two (2) points.
- d. Passive Buffer Zone: Shoreland vegetation buffer area within thirty-five feet (35') of the OHWM, including unmowed, grass, or other understory vegetation, but without the tree and shrub layers required to meet the three-point mitigation standard. A shoreline recreational area as defined in Article VIII is allowed. Two (2) points.
- e. Sidelot Buffer Zone: A ten foot (10') wide side lot buffer zone including trees, shrubbery, underbrush and other natural vegetation extending along a side lot line for a depth of at least one hundred feet (100') from the OHWM. One (1) point. The side lot line buffers may be additive, for a maximum of two (2) points, if buffer areas exist and are maintained along both side lot lines.

3. Conditions

- a. No mowing is permitted in the buffer zone.
- b. The establishment of buffer zones except under ¶ A.2.d. are subject to a density of at least two (2) trees stems and four (4) shrub stems per one hundred square feet (100 sq. ft.) of buffer zone area id required. This density must be maintained through the maturity of the species.

B. Removal of Structures.

Points may be obtained for the removal of structures as set forth below.

1. Removal of a principal structure located within seventy-five feet (75') of the OHWM to a site that meets the OHWM set back requirements for new development on that waterbody. Three (3) points.
2. Removal of all non-principal, accessory structures located within thirty-five feet (35') of the OHWM, with the result that all such structures, including boathouses, are set back at least thirty-five feet (35') from the ordinary high water mark. Two (2) points.
3. Removal of all non-principal, accessory structures located between thirty-five feet (35') and seventy-five feet (75') from the ordinary high water mark, with the result that all such structures, including boathouses, are set back at least seventy-five feet (75') from the ordinary high water mark. One (1) point.
4. No non-principal, accessory structures are located less than seventy-five feet (75') from the ordinary high water mark. This point is not additive to points awarded for removal of structures from ¶ B.1. and ¶ B.2. above. One (1) point.

C. Other Practices.

1. At the discretion of the Zoning Administrator, up to three (3) additional mitigation points may be approved for restoration or protection activities that are likely to provide significant benefits to meet the objectives of this ordinance. Examples may include construction of a storm water detention basin or implementation of other storm water management plan activities, replacement of seawalls with bioengineering structures, or removal of artificial sand beaches.
2. Factors to be considered in making the determination of number of points and approval of alternative mitigation practices include, but are not limited to:
 - a. Cost of implementation;
 - b. Runoff diversion and/or retention;
 - c. Lot configuration;
 - d. Parcel size;
 - e. Location of impervious areas;
 - f. Sensitivity and level of development of the waterbody; and
 - g. Significance toward meeting ordinance objectives.

11.4 Mitigation Plan

A. Development and Implementation of Mitigation Plan

1. A mitigation plan shall be submitted on forms provided by the Zoning Administrator for review and approval. The plan shall indicate the selected

mitigation strategies and shall be signed by the property owner and filed with the Zoning Office prior to issuance of the zoning permit.

2. The mitigation measures shall be maintained in perpetuity, unless the property owner receives approval of a new, approved mitigation plan meeting the same point requirements.
3. Notwithstanding any other provisions of this ordinance, the current owner is solely responsible for compliance with the terms of this Article.

4. Certification of Completion

Within one year of issuance of the related zoning permit, the property owner shall complete the mitigation practices and shall certify in writing to the Zoning Administrator that the required mitigation has been completed. As part of the certification, the property owner shall submit photos documenting the mitigation measures.

5. Subsequent Development

Subsequent zoning permit applications shall not require additional mitigation provided the mitigation measures are maintained.

WAUPACA COUNTY

Section 5.0 Shoreline Buffer Area

5.5 Vegetation Protection Area

On each lot, in an area bounded by the ordinary High Water mark and a line which is 25 feet less than the shoreline setback (see Section 7) or 35 feet from the ordinary High Water mark, whichever is greater, land disturbing activities and vegetation removal are prohibited with these exceptions:

- 5.51 Pier and wharf construction confined to the view corridor described in Section 5.56.
- 5.52 Pedestrian access to the shoreline confined to the view corridor described in Section 5.56. Access may include an elevated walkway if:
 - 1) it is essential to access the shore because of steep slopes or wet soils;
 - 2) it is the minimum construction necessary to provide access;
 - 3) it is no more than 4 feet wide; and
 - 4) it includes no additional construction other than railings essential for safety.
- 5.53 A shoreline recreation area of no more than 400 sq. ft. setback at least 15 ft. from the OHWM and confined to the view corridor described in Section 5.56. Such area may be clear cut but may not be filled, terraced or otherwise recontoured and shall be immediately stabilized with vegetative ground cover such as turf grass.

- 5.54 Shoreline protection activities authorized by a state permit and erosion control measures approved by the County Land Conservation Department which are designed to remedy significant, existing erosion problems.
- 5.55 Removal of dead, diseased or dying trees which are a safety hazard or which threaten buildings and removal of nuisance exotic species provided they are replaced with native species as soon as practicable.
- 5.56 Establishment of a single view corridor on each lot containing a principal structure by selective pruning and removal of trees and shrubbery. Clear cutting, filling, grading and other land disturbing activities are not permitted. Sufficient trees and shrubbery shall be retained to screen development from view from the water. The corridor shall be no more than 30 feet wide in the dimension paralleling the shore.
- 5.57 Construction of facilities which provide public access to navigable waters provided the water quality, habitat and aesthetic objectives of this ordinance and its water classification policy are addressed by appropriate project location, design and mitigative measures approved by the Zoning and Land Conservation Departments. Such facilities may include fencing of open construction.
- 5.58 Implementation of DNR approved Forest Stewardship Plans and management plans approved under the Managed Forest Law provided activities conform with the practices described in *Wisconsin's Forestry Best Management Practices for Water Quality Field Manual*. These practices include:
- 1) locating forest roads outside if the vegetation protection area;
 - 2) locating landings outside of the vegetation protection area;
 - 3) avoiding movement or pilings of slash within the vegetation protection area;
 - 4) minimizing soil exposure and compaction;
 - 5) avoiding operation of wheeled or tracked harvesting equipment within 50 feet of the ordinary High Water mark except on existing roads or permitted stream crossings;
 - 6) using selective harvest to promote long-lived, large (12 inches or greater DBH) tree species appropriate to the site;
 - 7) leaving unharvested at least 60 square feet of basal area per acre in evenly distributed trees 5 inches or larger DBH; and
 - 8) harvesting at intervals no less than ten years apart.

The goals for the management of forest land within 50 feet of the ordinary High Water mark of any lake, river or stream shall be primarily for aesthetics while providing for water quality, wildlife habitat, recreational opportunities and utilization of timber harvested.

- 5.59 Grazing and cultivation of existing agricultural fields provided that best management practices recommended in a conservation plan approved by the County Land Conservation Department are followed. In addition, land disturbing activities, with the exception of permitted stream crossing, are prohibited within 50 feet of the ordinary High Water mark of any lake, river or stream.
- 5.60 Roadways and stream crossings which are essential to the reasonable use of property provided all federal, state and local regulations are complied with.
- 5.61 The installation of private on-site waste disposal systems shall be regulated by the County Sanitary Code.

* * *

Section 8.0 Nonconforming Uses, Structures and Lots

8.32 Shoreline Setback Nonconformities

- 1) A principal structure which is nonconforming as to shoreline setback and which is located within 50 feet of the ordinary High Water mark may be improved internally subject to the limitation of Section 8.31 (2)(a) but may not be expanded. Such improvement shall be confined to enclosed portions of the building envelope which existed at the time the structure became nonconforming and shall not include new basements or additional stories. Replacement of roofing, siding and windows and upgrading of insulation are permitted.
- 2) A principal structure (of at least 750 sq. ft.) which is nonconforming as to shoreline setback and which is located between 50 feet from the ordinary High Water mark and the required setback may be expanded to a total of 1500 square feet of the footprint or 15% of the lot area within 200 ft. of the OHWM (including original building and expansion) whichever is greater. Such expansion shall be located on the landward side of the structure wherever practicable and shall not include new basements except that a new basement may be permitted for an expansion located to the landward side of the existing structure. An additional story no larger than the footprint of the original structure and not exceeding 28 ft. in height may be permitted. (height shall be measured from the lowest exposed point of the structure to the peak of the roof) Section 6.16 regarding vegetative cover shall apply to such expansion.
- 3) In the application of sections 8.32 (1) & (2), a structure shall be regulated by the requirements of the most restrictive zone (0-50 or 50-required setback) in which it is located.
- 4) A plan to mitigate for the adverse effects of any shoreline setback nonconformity shall be implemented concurrent with external improvement or expansion of such structures. The plan shall be approved by the zoning administrator prior to issuance of a zoning permit and shall include a compliance schedule.

The following mitigation practices are mandatory for all such projects:

1. The associated privately owned wastewater treatment system must be evaluated and upgraded as appropriate [DCOMM 83.055(3)(b)(1&3)]; and

2. Standard erosion & storm water runoff control measures must be implemented and all mitigation activities shall comply with Section 6.0 regarding land disturbance activities.

In addition, a property owner shall ***choose at least four points*** from among the following mitigation practices: The property owner can use current equal practices to obtain the necessary 4 points.

1. Restore and maintain native vegetation and water quality protection functions of the shore buffer area within 25 ft. of the ordinary High Water mark [1 point].
2. Restore and maintain native vegetation and water quality protection functions of the shore buffer area within 50 ft. of the ordinary High Water mark [2 points].
3. Restore and maintain native vegetation and water quality protection functions of the shore buffer area within 75 ft. of the ordinary High Water mark [3 points].
4. Restore and maintain native vegetation and water quality protection functions of both sideyards [1 point].
5. Remove nonconforming accessory buildings from the shoreline setback area [1 point per building of <100 sq. ft., 2 points per building of 100-400 sq. ft. and 3 points per building of >400 sq. ft.]. If there are currently no accessory buildings within the shoreline setback, property owner receives 1 point.
6. Use exterior building materials that blend with the natural vegetation in the vicinity of the construction [1/2 point].
7. Other practices as agreed upon by the Zoning Department [as determined by the Zoning Department]. Examples may include replacement of seawalls for shoreline protection with bioengineering techniques or removal of artificial sand beaches.

A deed restriction describing the agreed upon mitigative measures and requiring compliance by subsequent owners shall be executed and recorded by the property owner before the applicable building permit may be issued.

- 5) Conversion of Seasonal Residences. A nonconforming seasonal, residential structure may be converted to year around residential use if:
 - (a) the associated sanitary system is brought up to current standards for new construction [justified by increased loading of the system and authorized by DCOMM 83.055(3)(b)(1&3)];
 - (b) the existing structure (prior to upgrading) is constructed on a full foundation that extends at least 4 ft. below ground or one that is certified by a registered engineer or architect to be adequate for proposed construction;
 - (c) no more than 20% of the structural members of the existing external walls and roof are modified or replaced; and
 - (d) the other requirements of this section are complied with.

Shoreland Mitigation Resources

PRESENTATIONS

Keeping Our Shores, Shoreland Best Management Practices. (March 1996) Video introduces and explains activities called best management practices, or BMPs, that shoreland owners can use to protect the water quality in their lake or river. Uses actors and guest experts to stress easy and inexpensive BMPs that property owners can adopt to make a difference in water quality. Highlights the importance of shoreline filter strips, proper septic maintenance, and appropriate lawn care practices to protect water quality, ensure safe recreational use, and maintain property values. Available for \$15.00 from University of Minnesota – Extension at (800) 876-8636.

The Living Shore. (17 min., 1998). Video explains the importance of leaving a natural “buffer zone” between lakes and lake owners’ dwellings. It also provides information on selecting and planting shoreline plants. It is available from Wisconsin Association of Lakes, (800) 542-5253 for \$15.00 plus \$2.00 shipping. It also available at many public libraries.

EDUCATIONAL MATERIALS

Designing a Native Landscape Can Help Water Quality. (1 pp., no date). Land and Water Stewardship article describes the benefits of native landscapes and how you can design your own. Available on-line at:
[<http://clean-water.uwex.edu/pubs/stewards/Y010.pdf>].

Fish Habitat: A Good Lake is Hard to Find. (1 pp., no date). Land and Water Stewardship articles explains the importance of a natural shoreline to fish habitat. Available on-line at: [<http://clean-water.uwex.edu/pubs/stewards/S001.pdf>].

A Fresh Look at Shoreline Restoration. (4 pp., 1999). Handout explains the important of shoreland buffers and provides some basic tips on how to begin your own shoreland restoration project. It is available from county UW-Extension offices or Extension Publications, 45 N. Charter Street, Madison, WI, 53715 or by calling (608) 262-3346 (toll-free 877-947-7827). Ask for publication number GWQ027. It is also available on-line at: [<http://clean-water.uwex.edu/pubs/shore/index.html>].

Habitat Management and Natural Beauty Protection. (2 pp., February 1999). Fact sheet explains the importance of shore and near shore zones to wildlife habitat and natural beauty. It also provides options for maintaining or improving these zones. Available from Wisconsin Association of Lakes, (800) 542-5253 or UWEX, Stevens Point at (715) 346-2116. Ask for fact sheet #19 of the Shoreland Management and Lake Classification Series.

Improving Fish Habitat in your Lake. (1 pp., no date). Land and Water Stewardship article provides hints on native plants to install in your shoreland area to improve fish habitat. Available on-line at: [<http://clean-water.uwex.edu/pubs/stewards/S011.pdf>].

Installing a Shoreland Septic System: Shoreland Best Management Practices. (2 pp., March 1996). Fact sheet describes the process of siting and installing a shoreland septic system. Available from Minnesota Extension Service at 109 Washburn Hall, 2305 East 5th Street, Duluth, MN, 55812-7512 or phoning (218) 726-7512. Ask for fact sheet #3.

Lakescaping for Wildlife and Water Quality. (176 pp., no date). This book describes the issues facing waterfront owners who wish to protect their water quality and provides examples of how homeowners have dealt with those concerns. It focuses on native landscaping techniques and provides plant lists and nurseries sources. Available from Minnesota Department of Natural Resources, Minnesota's Bookstore at (800) 657-3757.

Maintaining your Shoreland Septic System: Shoreland Best Management Practices. (4 pp., March 1996). Fact sheet explains how septic systems work, the dangers they can pose to water quality, and how to maintain them. Available from Minnesota Extension Service at 109 Washburn Hall, 2305 East 5th Street, Duluth, MN, 55812-7512 or phoning (218) 726-7512. Ask for fact sheet #2.

Mitigation. (2 pp., February 1999). Fact sheet defines mitigation and options available to compensate for lost shoreland buffers. Available from Wisconsin Association of Lakes, (800) 542-5253 or UWEX, Stevens Point at (715) 346-2116. Ask for fact sheet #18 of the Shoreland Management and Lake Classification Series.

Sensible Shoreland Lighting: Preserving the Beauty of the Night. (12 pp., September 2000). This booklet describes the issue of light pollution with a special focus on issues surrounding shoreland lighting. It provides information on new lighting technologies that can deliver adequate illumination, provide security, save money and reduce light pollution without competing with the beauty of the night. It is available from county UW-Extension offices or Extension Publications, 45 N. Charter Street, Madison, WI, 53715 or by calling (608) 262-3346 (toll-free 877-947-7827). Ask for publication number GWQ031.

Shoreline Plants and Landscaping. (16 pp., 1999). Booklet provides information on alternative landscaping options for shoreland sties and provides a plant list of native and horticultural plants which are suited to shorelines. It is available from county UW-Extension offices or Extension Publications, 45 N. Charter Street, Madison, WI, 53715 or by calling (608) 262-3346 (toll-free 877-947-7827). Ask for publication number GWQ014. It is also available on-line at:
[<http://clean-water.uwex.edu/pubs/yardcare/shorlpl.pdf>].

Steps for Maintaining Healthy Lawns and Quality Waters. (1 pp., no date). Land and Water Stewardship article that provides recommendations for how to manage your lawn and protect water quality. Available on-line at:
[<http://clean-water.uwex.edu/pubs/stewards/Y001.pdf>].

The Water's Edge. (12 pp., 2000). Booklet describes how shoreland homeowners can improve fish and wildlife habitat on their property. Available from your local DNR office or by calling the Wisconsin Department of Natural Resources, Lakes and Wetlands Section, (608) 266-2244 and ask for publication number PUB-FH-428 00.

Three Ways to Keep Phosphorus Out of Our Lakes. (1 pp., no date). Land and Water Stewardship Article provides hints on landscaping options to lower phosphorus levels in our waters. Available on-line at: [<http://clean-water.uwex.edu/pubs/stewards/Y009.pdf>].

Treasure your Streams. (1 pp., no date). A Land and Water Stewardship article describes options for streamside protection. Available on-line at: [<http://clean-water.uwex.edu/pubs/stewards/P009.pdf>].

Wild Ones Handbook: A Voice for the Natural Landscaping Movement. (30 pp., 1997). The handbook provides information on the native landscaping – site evaluation, design, installation and maintenance. Available from Wild Ones Handbook, PO Box 23576, Milwaukee, WI, 53223-0576 or on-line at: [<http://www.epa.gov/glnpo/greenacres/wildones/#HANDBOOK>].

What is a Buffer? (2 pp., 1999). Handout gives the legal and practical definitions of a buffer and why they are important. It is available from county UW-Extension offices or Extension Publications, 45 N. Charter Street, Madison, WI, 53715 or by calling (608) 262-3346 (toll-free 877-947-7827). Ask for publication number GWQ028. It is also available on-line at: [<http://clean-water.uwex.edu/pubs/shore/index.html>].

TECHNICAL REFERENCES

Bioengineering for Hillslope, Streambank and Lakeshore Erosion Control. (8 pp., November 1996). This guide describes bioengineering techniques for hillslope, streambank and lakeshore erosion control. Tips for a successful bioengineering installation and demonstration projects are described. Available on-line at: [<http://ianrwww.unl.edu/pubs/Soil/g1307.htm>].

Siting and Design Guidelines for Structures on the Victoria Coast. (On-line document, May 1998). The primary purpose of the Siting and Design Guidelines is to define those issues which should be considered in the siting, design and construction of new structures and the improvement of existing structures in coastal areas. This document is not intended to be used as a manual for designing and siting in the coastal areas, rather the focus is to raise awareness of more sensitive design and development. It is intended that the guidelines will be used in conjunction with appropriate professional advice and information available from consultation with the relevant authorities. Available on-line at: [<http://www.vcc.vic.gov.au/siting/index.htm>].