

# Door County Shoreland Mitigation Handbook



Adopted by the Resource  
Planning Committee  
May 1, 2014

Last update: August 6, 2015  
This update: March 14, 2017

# Mitigation

## Mitigation – What is it?

Mitigation is defined in NR115, Wisconsin's Department of Natural Resources Administrative Code that defines the state mandated shoreland protection program, as balancing measures that are designed, implemented and function to restore natural functions and values that are otherwise lost through development and human activities. Mitigation requires owners of waterfront properties to provide water body protection measures in exchange for being able to construct or expand structures or uses on the shoreline property.

## Goals of Mitigation.

Restoration of shoreland buffer zones is a primary goal of the mitigation strategies. Shoreland buffer zones are the last opportunity for detention or infiltration of pollution-laden runoff before it reaches the waterway. When shoreland vegetation is disturbed or removed by human activities, runoff can affect aquatic plants and animals by carrying elevated sediment, nutrient and toxicant loads to water bodies. Buffer zones also provide critical habitat for wildlife and provide for natural beauty.

Mitigation Strategies are designed to:

1. Allow property owners a range of options to achieve the level of mitigation required.
2. Provide more environmental protection to water bodies.
3. Give credit to property owners who have maintained more natural environmental protective functions on their properties.
4. Promote removal of structures located within 75 feet of the ordinary high water mark.

## How does the point system work?

Door County implemented a point system where property owners are required to achieve a certain number of points corresponding to a project proposed. Property owners then choose strategies, with each strategy being worth a pre-determined number of points, to achieve the total number of points required for their properties. Once the points are achieved and the property owner agrees to implement and maintain the mitigation strategies into perpetuity, and an affidavit to that effect will be recorded on the deed at the Register of Deeds office, a zoning permit can be issued.

### Mitigation Required

	<b>When is mitigation required?</b>	<b>How much mitigation is required?</b>
Situation A	≤ 200 square feet of lateral expansion of a non-conforming principal structure.	2 points
Situation B	Replacement or relocation of a nonconforming principal structure.	2 points
Situation C	Increase Impervious Surface Ratio (ISR) from 15% or more to up to 30%.	2 points

## Mitigation Options

(See pages 5-14 for further information)

MITIGATION TYPE	NUMBER OF POINTS
A. Maintain existing natural buffer (OHWM extended 35' landward)	3 points
B. Restoration of a primary buffer (7' deep x 35' long area parallel to OHWM)	2 points
C. Restoration of (or maintain existing) sideyard buffer (7' wide x 35' long area adjacent and parallel to side lot line and within 0' – 75' from OHWM)	1 point
D. Decrease access and viewing corridor	1 point / 5% decrease from 35% (max. of 4 points)
E. Increasing setback of proposed and future structures from OHWM	1 point per 5' of increased setback beyond required (max. of 3 points)
F. Use of earth-tone materials or colors	1 point
G. Removal of a non-conforming structure	2 points for accessory structures 3 points for principal structures
H. Removal of existing shore lighting or replacement with downcast lighting	1 point
I. Stormwater plan	4 points
J. Method approved by Planning Department staff	Based on proposal

## A. Maintain Existing Primary Natural Buffer – 3 points

Natural vegetative buffer exists on the property for a minimum of 35 feet from the OHWM of the water resource.

*Mitigation Intent:* Credit existing natural vegetative buffers already in place on shoreland properties.

*Standards:* Development of a management plan including inventory and control of invasive species that may be present. This may require supplementing the existing vegetative buffer with additional native species of trees, shrubs, and/or groundcovers.

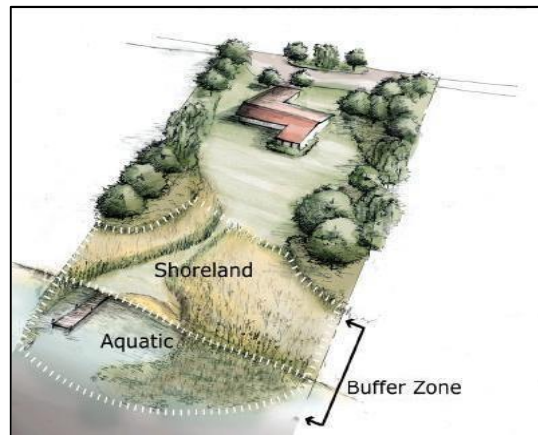


Image: The Wisconsin Lakes Partnership

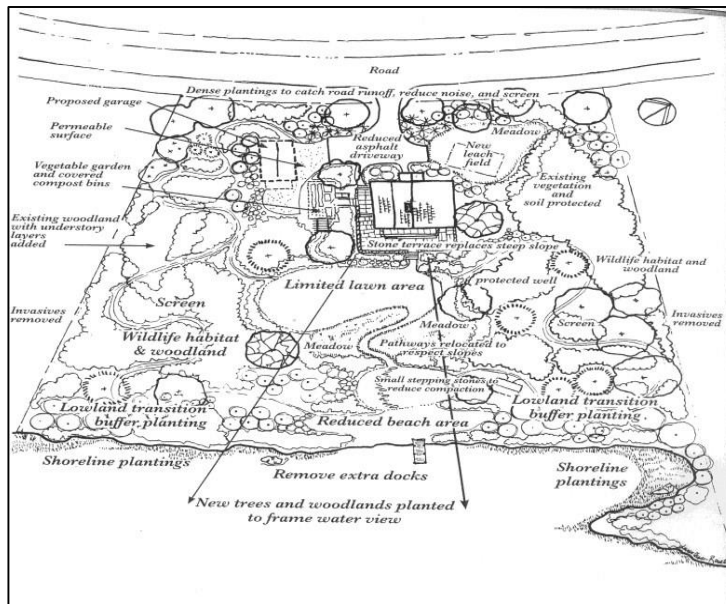


Image: The Wisconsin Lakes Partnership

*References:*

[Shoreland restoration: a growing solution video](#)

## B. Restoration of a Primary Buffer – 2 points per 7' of buffer

Restore a primary vegetative buffer of 7 feet deep by 35 feet in length parallel to and within 35 feet of the OHWM of the water resource.

*Mitigation Intent:* Protection of the water resource through the reestablishment of native vegetation in the primary buffer, screening of development from the waterway, and provide near shore wildlife habitat.

*Standards:* Development of a restoration plan using native plantings suitable to the site. The near shore habitat should be designed with native plantings that offer protection and improvement of the water resource. A management plan identifying the establishment of native plantings, invasive species control, and site specific remedies to control erosion on the site during and after the project is needed for this mitigation strategy. Viewing corridor from the developed portion of the site to the waters edge can be maintained for the benefit of the property. Plan restores three tiers of native vegetation within the buffer area—canopy, shrubs, and ground layer of grasses, sedges, rushes, ferns, and wildflowers.

Wisconsin Biology Technical Note 1: Shoreland Habitat: should be used as guidance to develop the restoration/revegetation plan. Please see link below: <http://dnr.wi.gov/topic/ShorelandZoning/documents/NRCSBioTechNote.pdf> or a hard copy may be viewed at the Planning Department.



Image: The Wisconsin Lakes Partnership



Image: [www.wisconsinlakes.org](http://www.wisconsinlakes.org)

### *References:*

[Protecting and Restoring Shorelands - WDNR/UWEX](#)

[A Fresh Look at Shoreland Restoration - WDNR/UWEX](#)

[Protecting our Living Shores - WDNR/UWEX](#)

[Wisconsin Native Plant Sources and Restoration Consultants - DNR/UWEX](#)

[Shoreland Habitat Conservation Practice Standard - NRCS](#)

[Native Plants - Sheboygan County Stormwater Manual pg. 44](#)

[Re-Vegetation Fact Sheet - Waushara Co.](#)

[Shoreland restoration: a growing solution video](#)



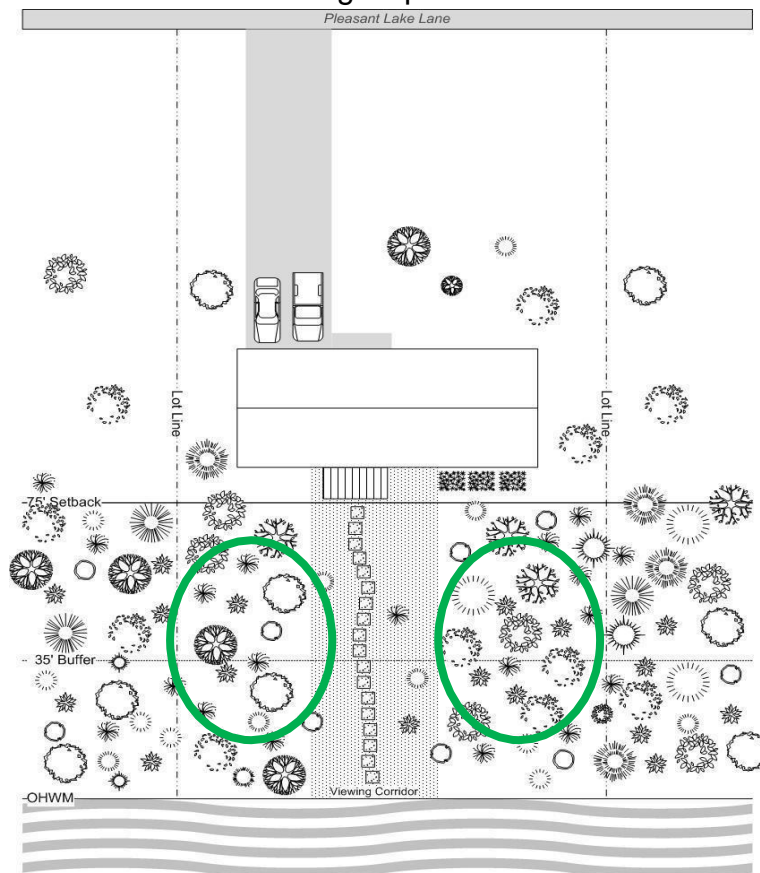
### C. Restoration of (or maintain existing) Side-Yard Buffer – 1 point per 7' of width

Restoration of natural vegetation 7' wide by 35' long adjacent and parallel to the side-yard of the parcel, within 0' to 75' from the OHWM.

*Mitigation Intent:* Habitat improvement of the side-yard areas on shoreland properties with the reestablishment of native vegetation. Points will be credited for existing buffers in this area.

*Standards:* Native Plants, Invasive species control, removal of dead, diseased, dying vegetation.

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#### References:

- [Protecting and Restoring Shorelands - WDNR/UWEX](#)
- [A Fresh Look at Shoreland Restoration - WDNR/UWEX](#)
- [Protecting our Living Shores - WDNR/UWEX](#)
- [Wisconsin Native Plant Sources and Restoration Consultants - DNR/UWEX Shoreland](#)
- [Shoreland Habitat Conservation Practice Standard - NRCS](#)
- [Re-Vegetation Fact Sheet - Waushara Co.](#)

**D. Decreased Access and Viewing Corridor – 1 point per 5% decrease from 35% (maximum of 4 points)**

30% Viewing Corridor = 1 point  
25% Viewing Corridor = 2 point  
20% Viewing Corridor = 3 points  
15% Viewing Corridor = 4 points

Reduction of the maximum allowed access and viewing corridor width to the waters edge and increasing the natural buffer within 35' of the OHWM.

*Mitigation Intent:* Habitat improvement on shoreland properties with increased reestablishment of native vegetation. Screening of development as viewed from the waterway. Points will be credited for existing viewing corridors that are less than 35%.

*Standards:* Native trees, shrubs, and ground cover plantings  
Wisconsin Biology Technical Note 1: Shoreland Habitat: should be used as guidance to develop the restoration/revegetation plan. Please see link below: <http://dnr.wi.gov/topic/ShorelandZoning/documents/NRCSBioTechNote.pdf> or a hard copy may be viewed at the Planning Department.



Image: The Wisconsin Lakes Partnership

*References:*

[Protecting and Restoring Shorelands - WDNR/UWEX](#)  
[A Fresh Look at Shoreland Restoration - WDNR/UWEX](#)  
[Protecting our Living Shores - WDNR/UWEX](#)  
[Wisconsin Native Plant Sources and Restoration Consultants - DNR/UWEX](#)  
[Shoreland Habitat Conservation Practice Standard - NRCS](#)  
[Infiltration Steps](#)  
[Paths and Walkways Managing Foot Traffic for Lake Protection](#)



**E. Increased Setback of Structures – 1 point per 5’ of increased setback beyond required (maximum of 3 points)**

Siting a proposed structure and future structures on the property further away from the OHWM than the required minimum setback.

*Mitigation Intent:* Increased enhancement of the natural views from the water by increasing the distance between the waterway and the development on a property. Benefits to water quality result from a wider buffer between the impervious surface and the waterway.

*Standards:* Increased distance between structures from the water’s edge beyond the minimum setback as defined by the *Door County Shoreland Zoning Ordinance*.

**F. Use of Earth-Tone Materials or Colors – 1 point**

Earth-tone colors utilized on the developed portion of the property.

*Mitigation Intent:* Improved natural views from the water using colors to screen the development on shoreland property. Blend the development on a property with the natural surroundings of the shoreland to make the site less conspicuous as viewed from the water.

*Standards:* Use of earth-tone colors for all developed components of the development on the property as viewed from the shore. Practices include the use of exterior building materials or treatments that are inconspicuous and blend with the natural setting of the site.

**G. Removal of a Non-Conforming Structure  
Accessory Structure – 2 points  
Principal Structure – 3 points**

Voluntary removal of a legal non-conforming structure on the property.

*Mitigation Intent:* Elimination of legal non-conforming structures on shoreland properties.

*Standards:* Removal of a legal nonconforming structure without replacement. An existing nonconforming accessory structure must be of at least 120 square feet in area to qualify for 2 points.

## **H. Removal of Existing Shore Lighting or Replacement with Installation of Downcast Shore Lighting – 1 point**

Remove, reduce, or improve, or install lighting to limit light pollution beyond the viewing corridor of the property.

*Mitigation Intent:* Improved natural views from the shoreline

*Standards:* All lighting within 75' required to comply with a down-lighting standard eliminating the spillover of light to the water or neighboring properties.

*References:*

[Sensible shoreland lighting](#)

## I. Stormwater Plan – 4 points

An engineered system designed to absorb the accumulated water from a rainfall event.

*Mitigation Intent:* Improve/preserve water quality by offsetting the impacts of surface runoff associated with a developed shoreland property. Design should be consistent with the scale of the proposed project and conform to property constraints.

*Infiltration Practices:* Infiltration trenches, infiltration chambers, drywell, grass swales, etc.

*Standards for all stormwater infiltration system components:* See Door County Soil & Water Conservation Department Procedure Policy: *Urban Storm Water Runoff Control Design Criteria, Construction Site Erosion Control and Post Construction Storm Water.*

Note: A minimum of 3' of soil above bedrock and/or above groundwater is required.

### Example component: Grass Swale

Typical elements:

Grass surface

Stone subsurface similar to infiltration trench

In situ soils suitable for infiltration

Design overflow to minimize impacts to lakes and streams

Maintain safe separation from groundwater and bedrock



Image: WDNR

## Example component: Rain Garden

A shallow depression planted with suitable native vegetation designed to absorb stormwater.

*Mitigation Intent:* Improve/preserve water quality by offsetting the impacts of surface runoff associated with a developed shoreland property. Design should be consistent with the scale of the proposed project and conform to property constraints.

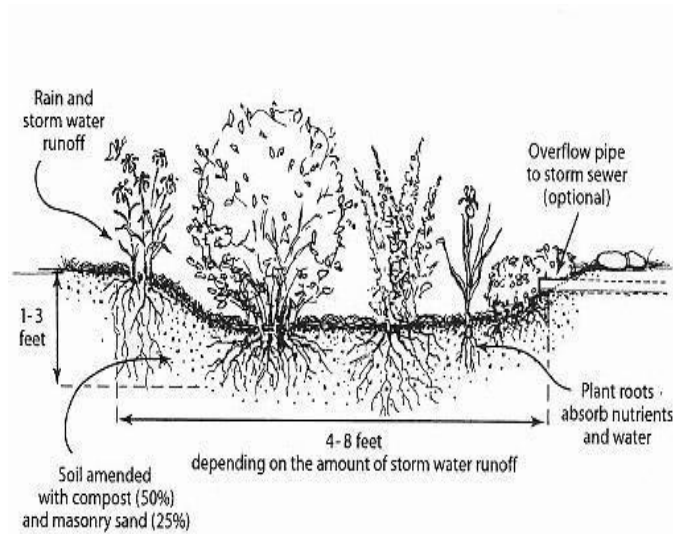


Figure: Cornell University

### *Reference:*

[Rain Gardens A how-to for homeowners - WDNR](#)

## Example component: Rain Gutter System

A method for collection and diversion of gutters and downspouts to lessen the impacts of the concentrated flow generated by a rain storm event.

*Mitigation intent:* protection of water resources from suspended pollutants through the reduction of the concentrated flow of stormwater collected by rain gutters and released to the ground surface.

Rain barrels can be utilized as part of this remedy, but must be used in conjunction with other diversion or collection practices such as rain gardens, infiltration systems, filter strips, etc.

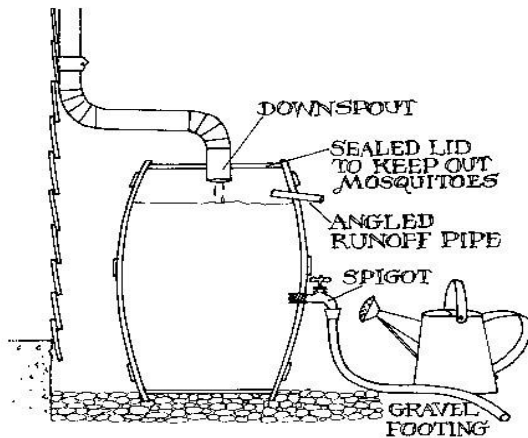


Image: Low Impact Development Center



**J. Method Approved by Planning Department Staff – Wildcard  
Points are based on proposal.**

Mitigation strategy proposed by the applicant and agreed upon by the Planning Department.

*Standards:* Applicant must demonstrate a connection between the proposed mitigation and the intent/purpose of the *Door County Shoreland Zoning Ordinance* and the *Door County Mitigation Handbook*. For example, an applicant could provide engineering information showing that the proposal could accomplish the same outcome as one of the mitigation strategies outlined. Points would be awarded in line with the comparable mitigation points.

