

# **Shoreline Restoration: Native Plants**

**Natalie Erler**

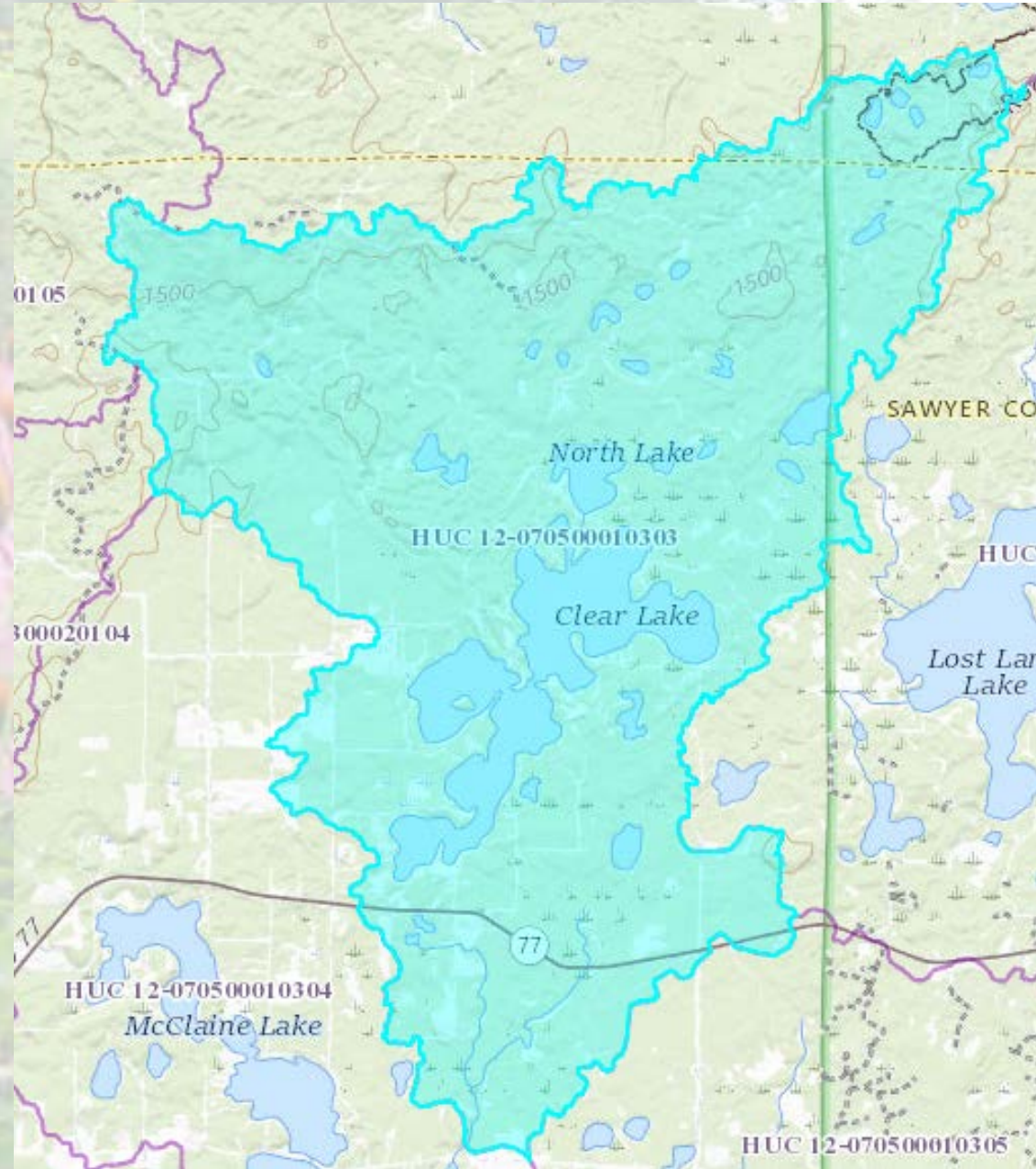
**Sawyer County Zoning & Conservation**



# Issues Facing Wisconsin Lakes & Streams

- **Surface Water Pollution**
- **Groundwater Pollution**
- **Erosion**
- **Decrease in wildlife habitat  
(and wildlife)**
- **Algae Blooms**
- **Goose abundance & their  
poop**
- **Decrease in fishery quality  
and quantity**
- **Higher bacterial levels →  
Beach Closures**

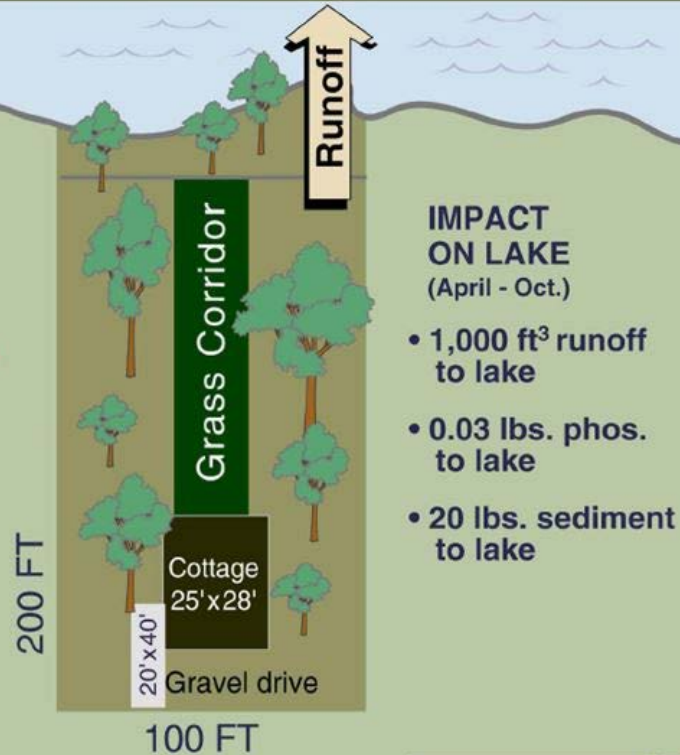
# Spider Creek Watershed



# Importance

## 1940s development – Apr.-Oct. phosphorus/sediment runoff model

- maple-beech forest
- 6% slope to lake
- grass corridor 20'-wide
- cottage 700 ft<sup>2</sup> perimeter
- gravel drive 800 ft<sup>2</sup>
- 35'-wide buffer strip



### IMPACT ON LAKE (April - Oct.)

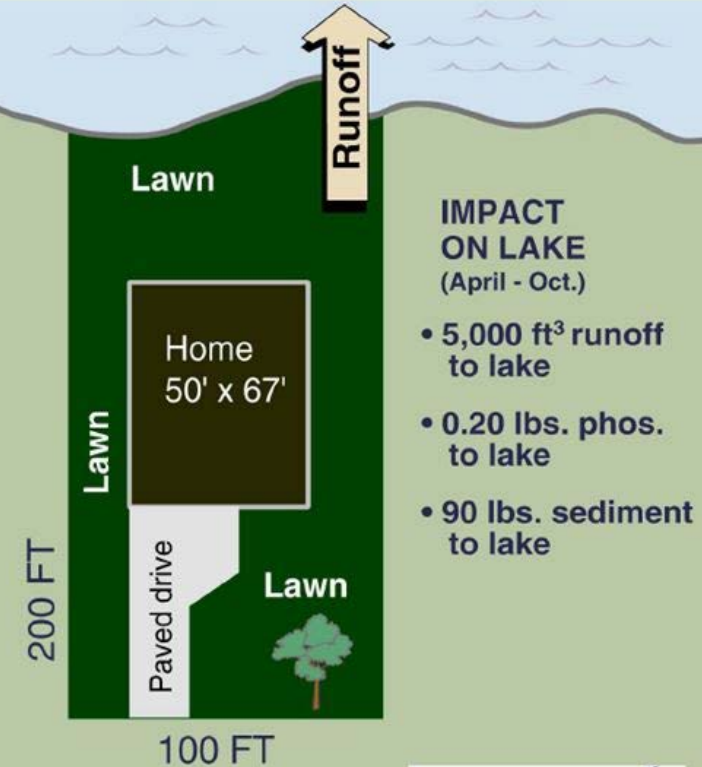
- 1,000 ft<sup>3</sup> runoff to lake
- 0.03 lbs. phos. to lake
- 20 lbs. sediment to lake

Source: Wisconsin Dept. of Natural Resources

The Wisconsin Lakes Partnership

## 1990s development – Apr.-Oct. phosphorus/sediment runoff model

- maintained lawn, soil graded
- 6% slope to lake
- home 3,350 ft<sup>2</sup> perimeter
- paved drive 770 ft<sup>2</sup>



### IMPACT ON LAKE (April - Oct.)

- 5,000 ft<sup>3</sup> runoff to lake
- 0.20 lbs. phos. to lake
- 90 lbs. sediment to lake

Source: Wisconsin Dept. of Natural Resources

The Wisconsin Lakes Partnership

5x ↑ in runoff  
6x ↑ in phosphorous

4.5X ↑ in sediment

# Importance

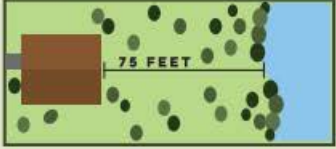


## THE VALUE OF SHORELAND ZONING



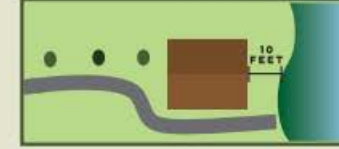
### ✓ SHORELAND ZONING

A house that is set back at least 75 feet from the water allows space for trees and native plants.



### ✗ NO SHORELAND ZONING

A house that is close to the water does not leave space for trees and native plants to stabilize the shoreline.



When hard surfaces are built far from the shore and native plants and trees are kept in place, the shoreline is naturally more stable allowing:

Clear water = High waterfront property values

Less lawn = Less runoff = Less water pollution

More native plants and trees = More fish and frogs

Less algae growth



When hard surfaces are built close to the shore and native plants are removed, the shoreline erodes into the lake causing:

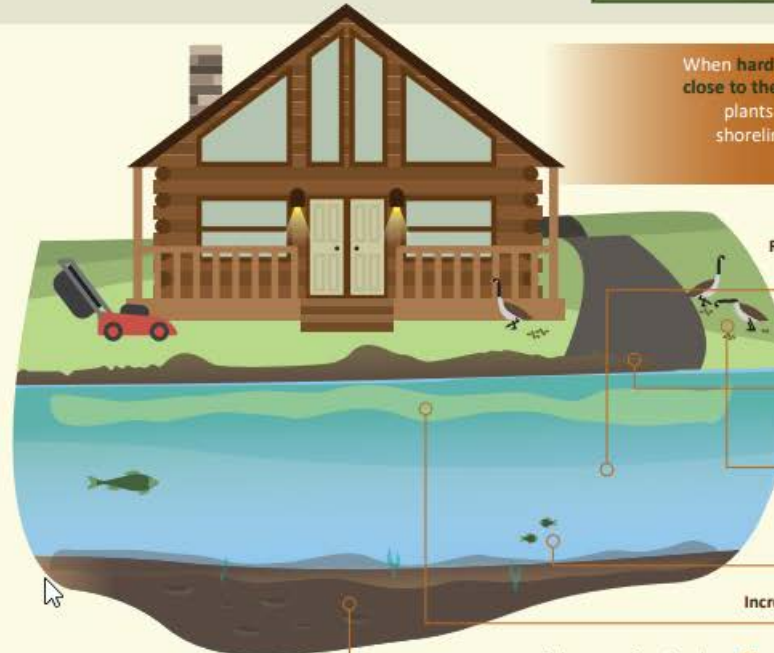
Cloudy water = Reduced waterfront property values

More lawn = More erosion that pollutes water

More lawn attracts geese

Fewer frogs, fish, and fish species

Increased algae growth



Fish eggs suffocate when covered in eroded soil

### CONCLUSIONS

Shoreland zoning standards make it possible to carefully develop a waterfront property, protect the lake or river, and keep waterfront property values high.

For more information, check with your local zoning office.

### WHAT DO SHORELAND ZONING STANDARDS ACCOMPLISH?

Fewer eroded shorelines

Clearer water = Higher property values

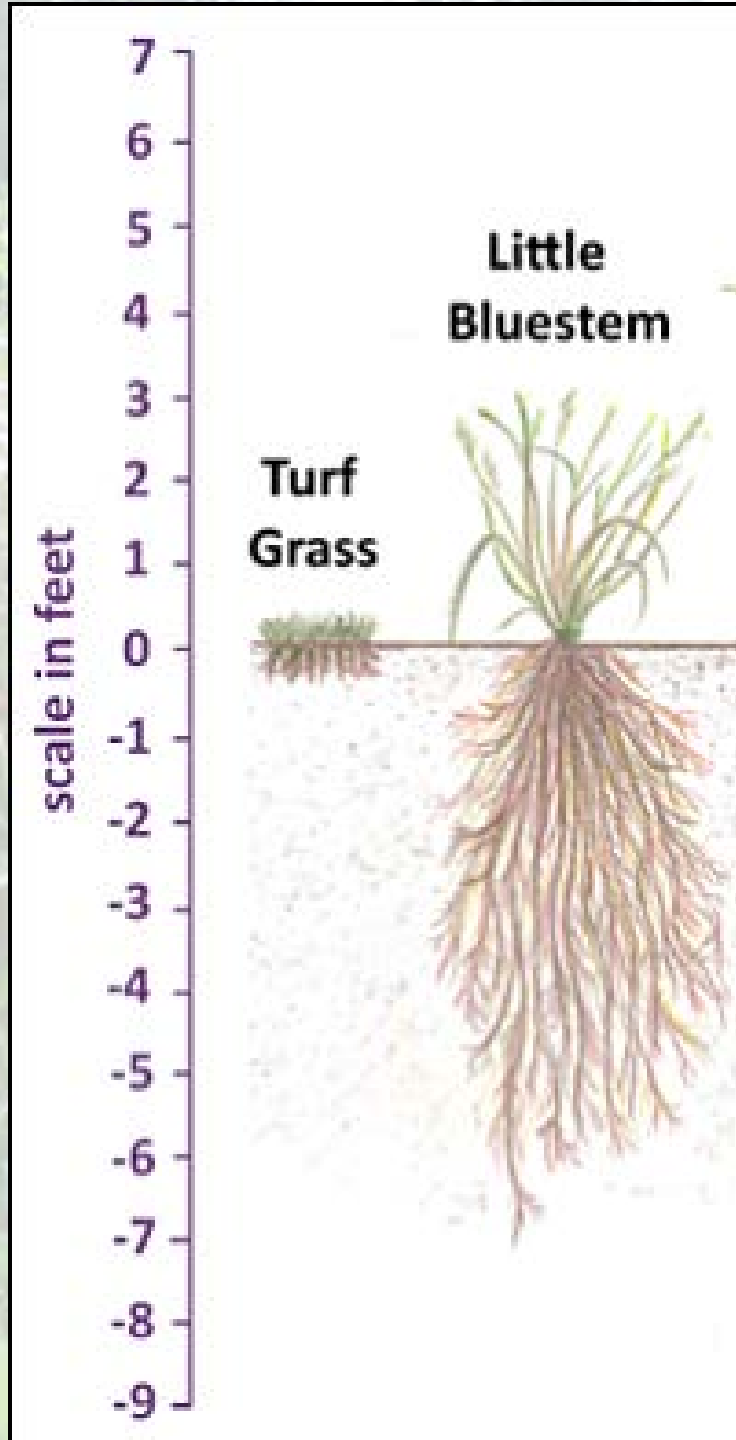
More fish and fish species

More food and shelter for fish and frogs

### CONCLUSIONS

Waterfront property developed without shoreland zoning standards can lead to erosion, harm the lake or river, and reduce waterfront property values.

Complete the Shoreland Evaluation Tool to assess your waterfront property at [survey.healthylakeswi.com](http://survey.healthylakeswi.com).



**After 1 year of growth!**



Swamp  
Milkweed



Native Aster



Blue Joint Grass

**Root structures important**

Fibrous roots that hold soil and absorb energy

**After 1  
year of  
growth!**



**Fox Sedge**



**Prickly Sedge**



**Porcupine Sedge**

**Root structures  
important**

Fibrous roots that hold  
soil and absorb energy



**Blue Vervain**



**Ox-Eye Daisy**



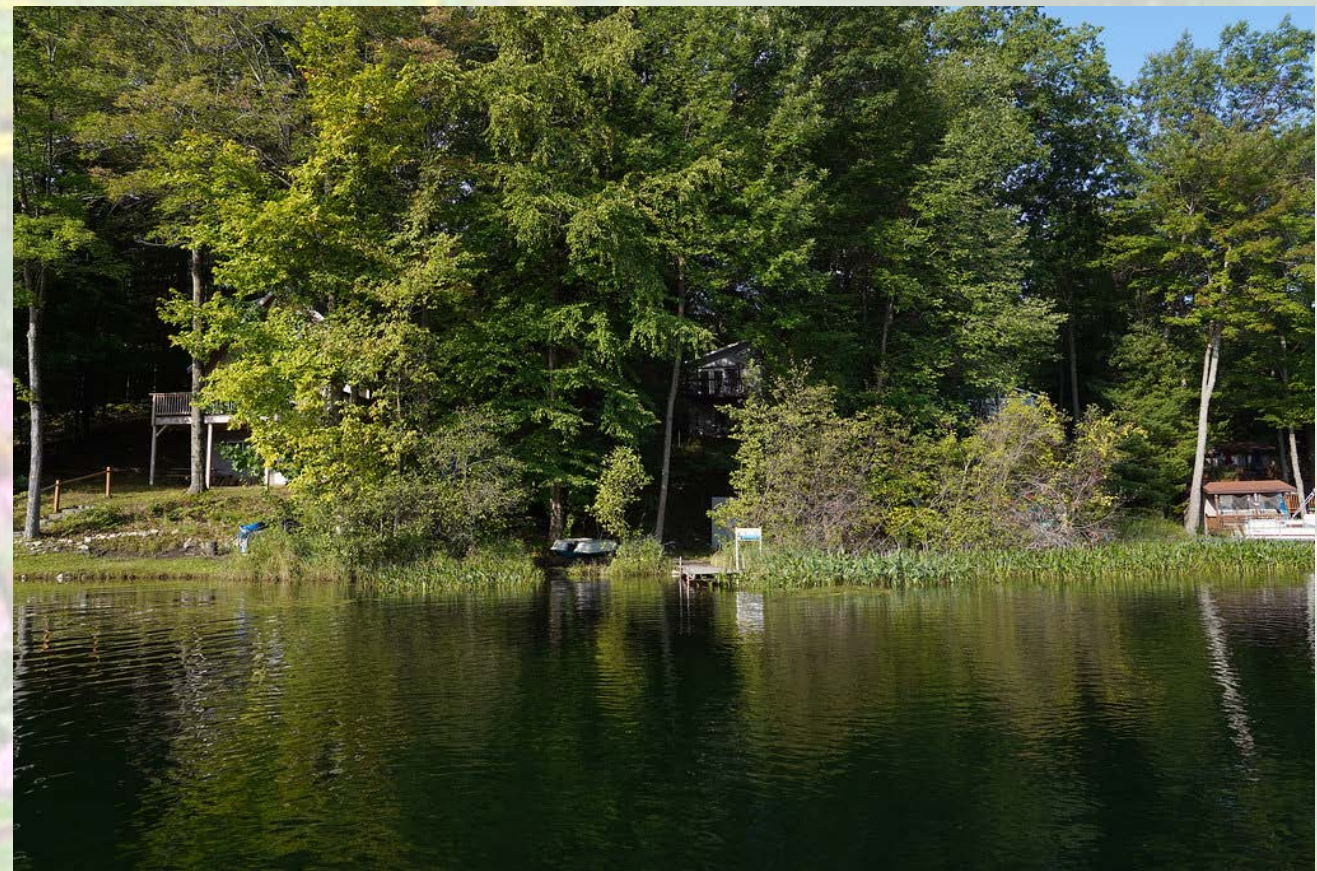
**Black Eyed Susan**



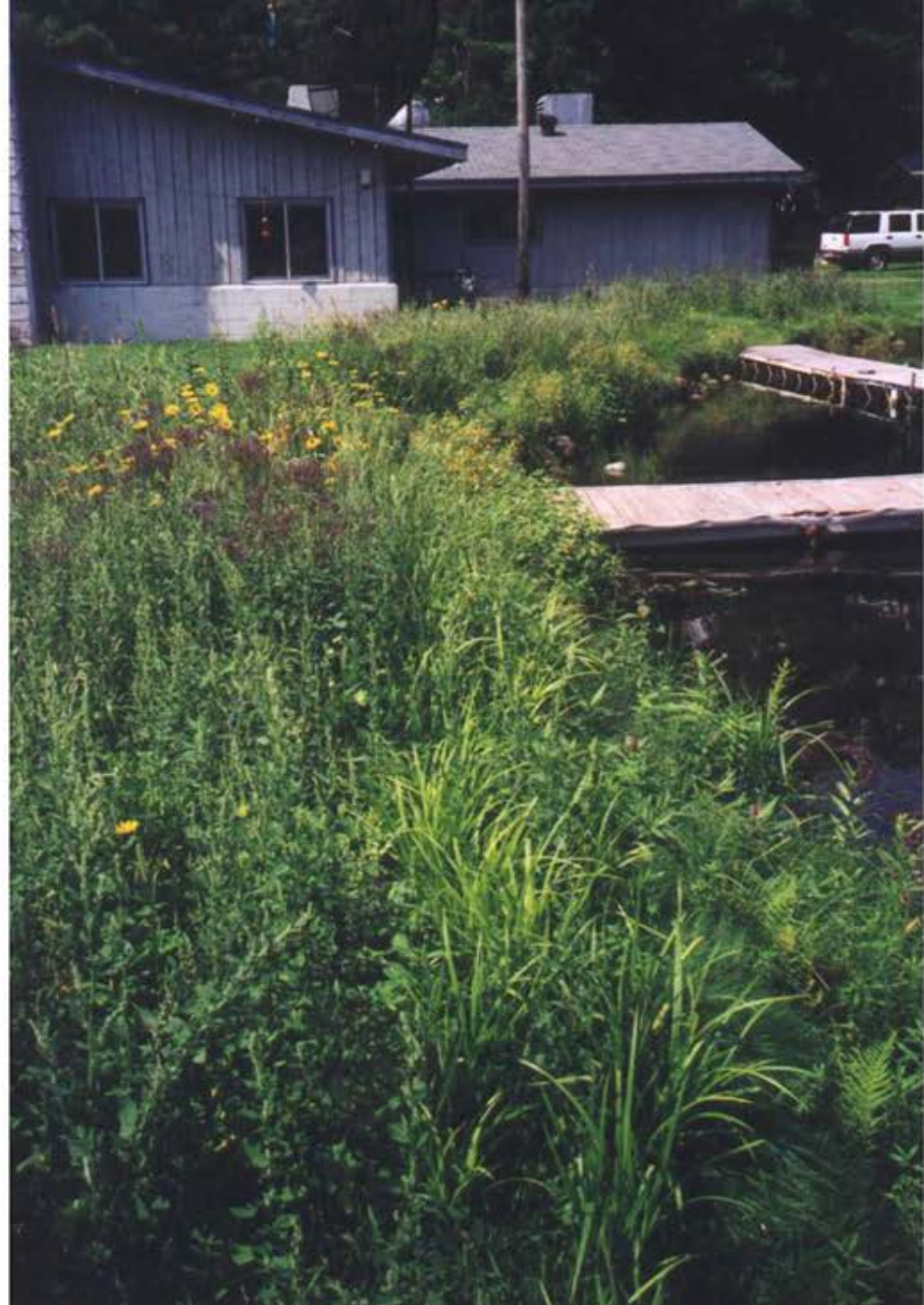
# End Goal



Shoreline Living Vol. 1



Shoreline Living Vol. 1



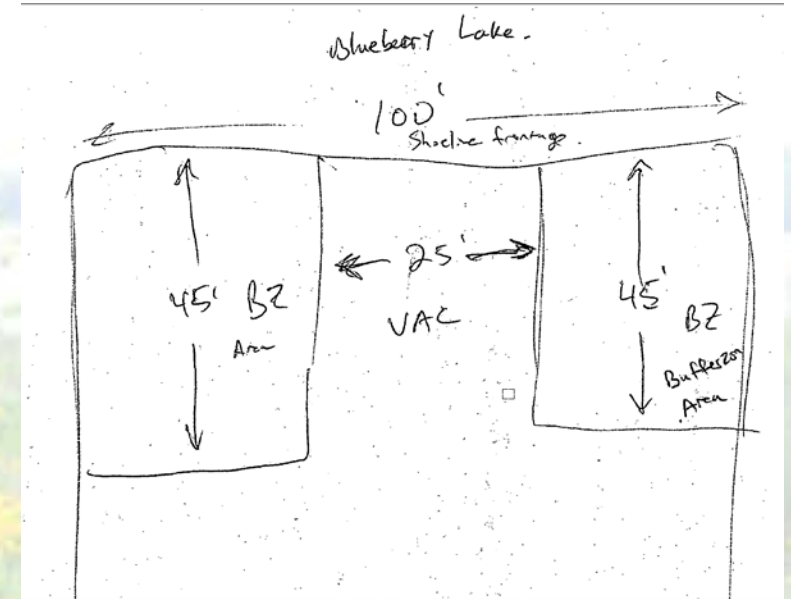
# The Process

- **Step 1: Map It Out** – where, shape, size

-There's no one size fits all

-All properties are different and you can make it your own

-Every property has different sunlight amounts, slopes, soil types, deer/rabbit issues etc.



# The Process

- **Step 2: Determine Sunlight & Soil Type**
  - **Full Sun → Shade**
  - **Dry/Medium Soil → Moist/Wet Soil**



## **FULL SUN**

At least 6 hours of direct, unfiltered sunshine daily



## **PARTIAL SUN**

4-6 hours of direct sunlight  
OR  
Filtered sunlight all day



## **SHADE**

Less than 4 hours of direct sunlight and heavily shaded



## **DRY-MEDIUM SOIL**

Drains well and has no standing water

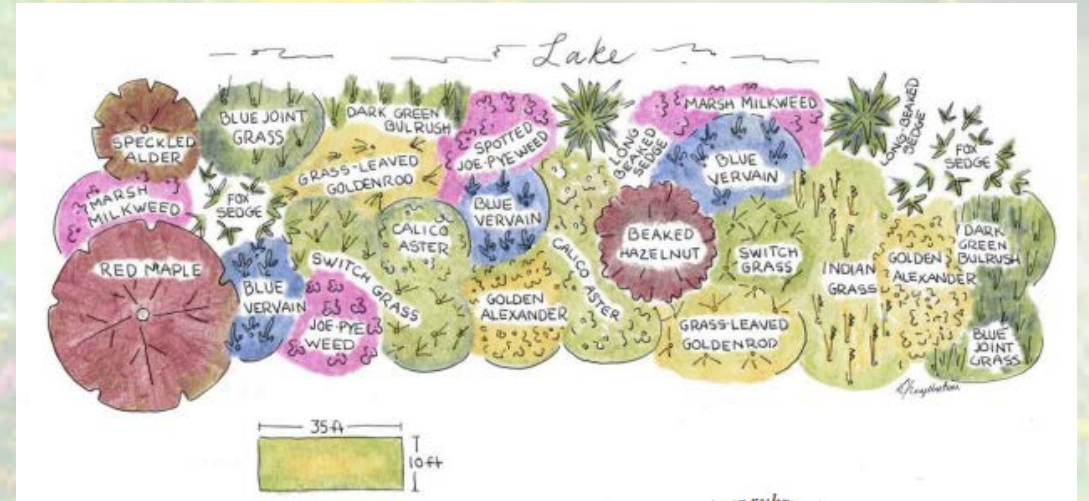
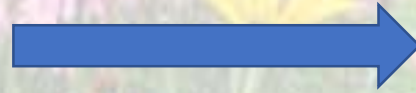


## **MOIST-WET SOIL**

Regularly damp with standing water in the spring

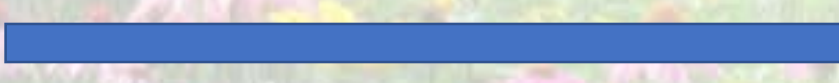
# The Process

- **Step 3: Choose Your Plants**
- **Examples: Attract birds/butterflies, deer resistant, low-growing plants, stabilize bare soil etc...**
- **Very customizable**
- **Step 3a: Draw It Out**
- **How many?**



- **3 Layers: Canopy, Shrub/grasses, Wildflower (groundcover)**
  - Important to have all 3 as they each do a job

# The Process

- **Step 4: Order your plants & pick a day!**
- Spring/early summer is best for planting**
- Local nurseries** 
- Buy plant plugs or plants in containers**



## Native Plant Sources

When choosing plantings for your Northwoods property, keep in mind that Sawyer County is within the Zone 3 hardiness area. Nursery sources in the area will often have a local genotype of a particular plant which will be more successful.

<b>Dragonfly Gardens</b> 491 State Hwy 46 Amery, WI 54001	715-268-7660 <a href="http://www.dragonflygardens.net">www.dragonflygardens.net</a>
<b>Prairie Moon Nursery</b> 32115 Prairie Lane Winona, MN 55987	1-866-417-8156 <a href="http://www.prairiemoon.com">www.prairiemoon.com</a>
<b>Agrecol</b> 10101 North Casey Rd Evansville, WI 53536	608-223-3571 <a href="http://www.agrecol.com">www.agrecol.com</a>
<b>Northern Native Plantscapes</b> 25350W Garden Ave Cable, WI 54821	715-794-2548 Sarah Boles Consultant
<b>M&amp;M Greenhouse</b> 52710 Robinson Lk Rd Barnes, WI 54873	715-795-2100 <a href="http://www.mmgreenhouse.com">www.mmgreenhouse.com</a>
<b>Winter Greenhouse</b> W7041 Olmstead Rd. Winter, WI 54896	715-266-4963 715-200-5430 <a href="http://www.wintergreenhouse.com">www.wintergreenhouse.com</a>
<b>Rolling Wood Nursery</b> W122 State Rd. 70 Stone Lake, WI 54876	715-865-6900

More locations can be found at:  
<https://widnr.widen.net/s/rfsbfc22w6/nh0698>

# The Process

- **Step 5: Prep the Planting Area**
  - **Eliminate non-native species including lawn/grass**
  - **Methods include: digging, smothering, and applying herbicides\***



# The Process

- **Step 6: Planting!!**

**Tips:**

- **Dig a wide & deep enough hole- root ball is  $\frac{1}{2}$  inch above soil (too deep will kill the plants)**
- **Label each species so you don't mistake for weeds**
- **Water often, especially during first year**



UW Extension Lakes



Kelly Nechuta



# The Process

- **Step 7: Maintain & Enjoy!**

- Weeding

- Watering (important 1<sup>st</sup> year)

- Prevent browse damage: sprays/temporary fencing



# Examples/Pictures



Kelly Nechuta



Shoreline Living Vol. 2

# Examples/Pictures



Patrick Goggin



Shoreline Living Vol. 1

# County Assistance

- **Help design and implement shoreline restoration projects**
- **Education**
- **DATCP Funding: Cost-share program. Streambank & Shoreline Protection reimbursed 50% up to \$3,000\***

**\*Are exceptions**

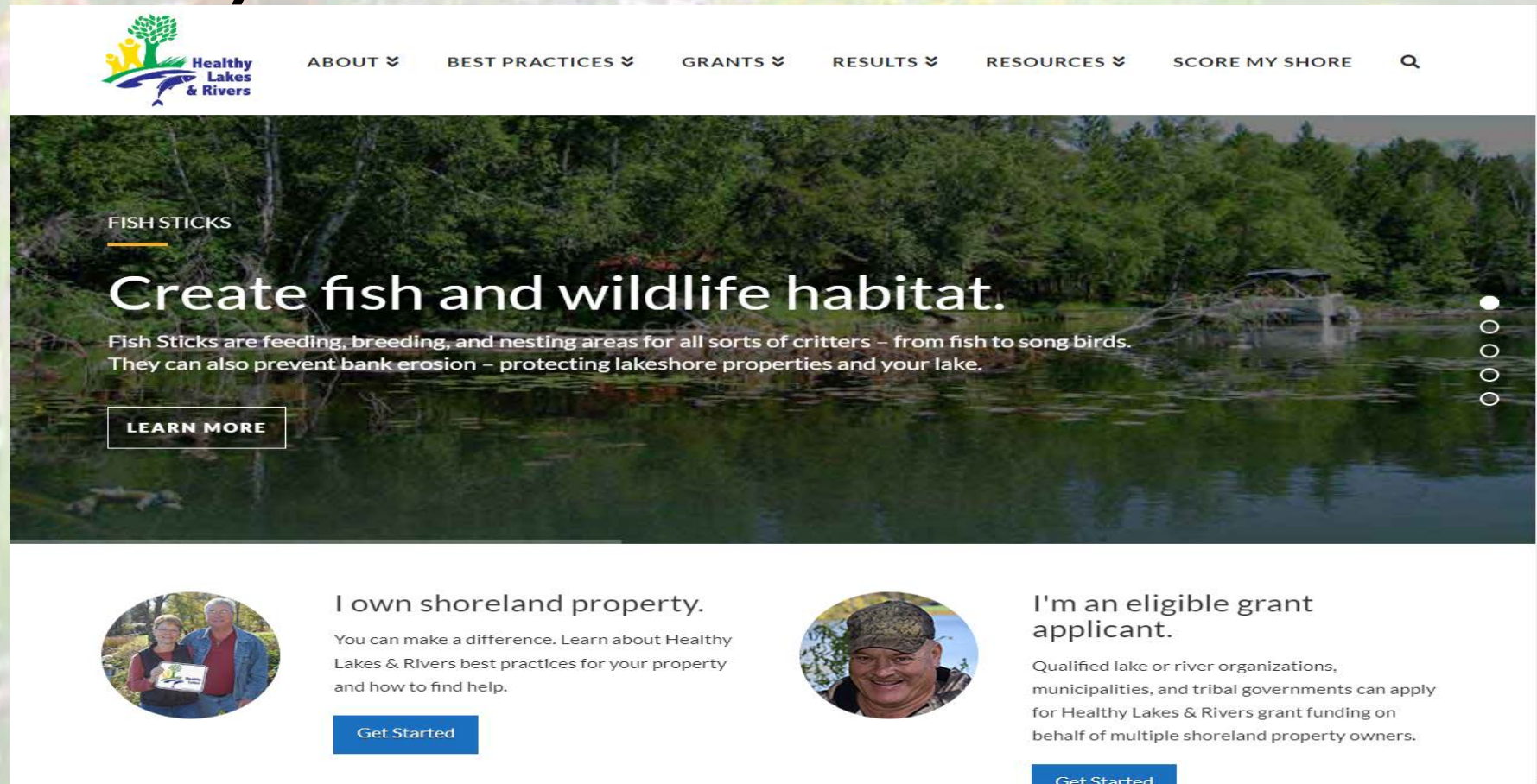
# Other Funding

[www.healthylakeswi.com](http://www.healthylakeswi.com)

- **DNR**

- Healthy Lakes and Rivers Grant

- Score My Shore Tool



The screenshot shows the website's navigation menu with the following items: ABOUT, BEST PRACTICES, GRANTS, RESULTS, RESOURCES, SCORE MY SHORE, and a search icon. Below the menu is a featured article titled "FISH STICKS" with the main heading "Create fish and wildlife habitat." The article text reads: "Fish Sticks are feeding, breeding, and nesting areas for all sorts of critters – from fish to song birds. They can also prevent bank erosion – protecting lakeshore properties and your lake." A "LEARN MORE" button is located below the text. The background of the article is a photograph of a lake with a small structure in the water.


**FISH STICKS**

## Create fish and wildlife habitat.

Fish Sticks are feeding, breeding, and nesting areas for all sorts of critters – from fish to song birds. They can also prevent bank erosion – protecting lakeshore properties and your lake.

[LEARN MORE](#)


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**I own shoreland property.**

You can make a difference. Learn about Healthy Lakes & Rivers best practices for your property and how to find help.

[Get Started](#)



**I'm an eligible grant applicant.**

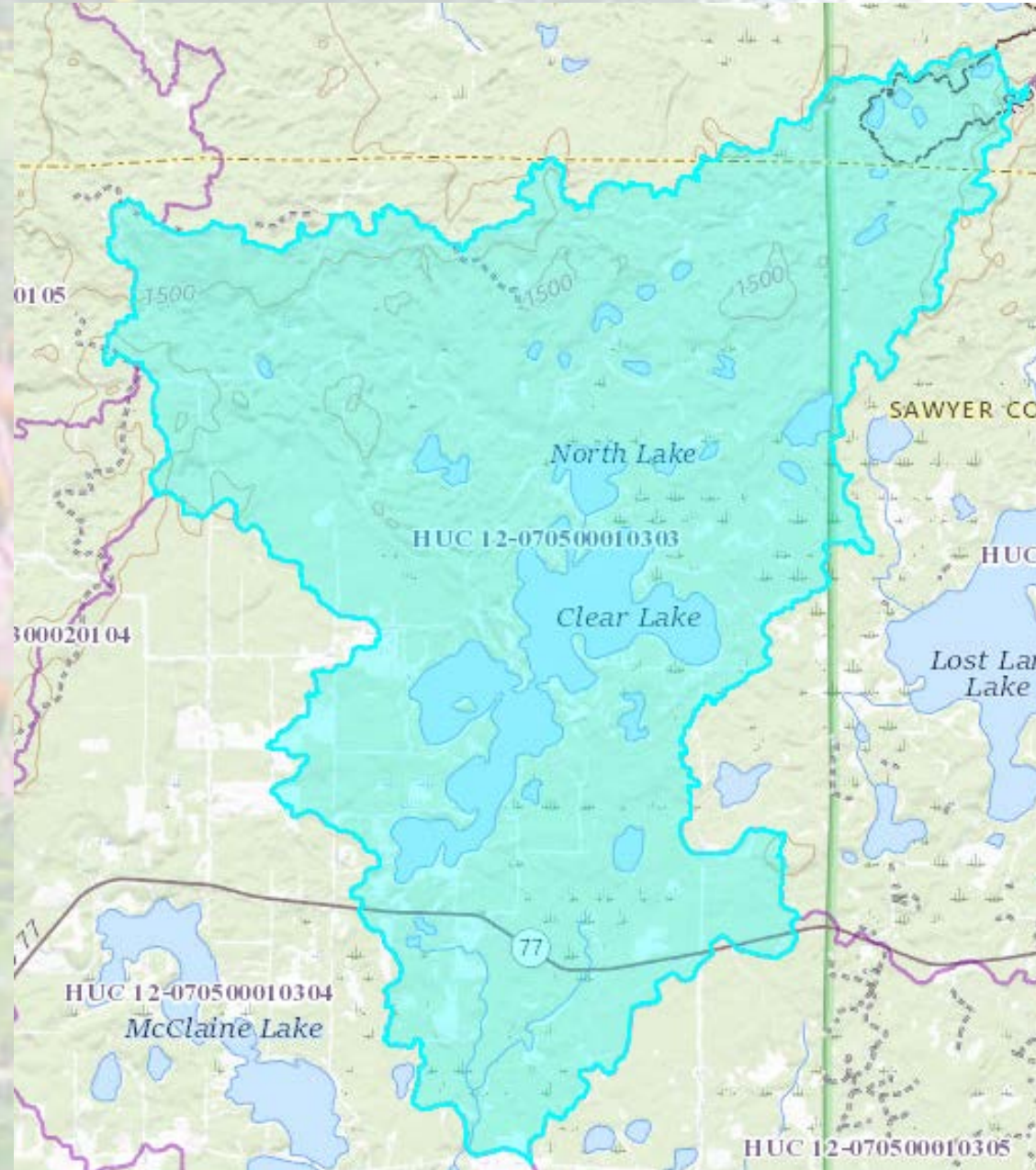
Qualified lake or river organizations, municipalities, and tribal governments can apply for Healthy Lakes & Rivers grant funding on behalf of multiple shoreland property owners.

[Get Started](#)

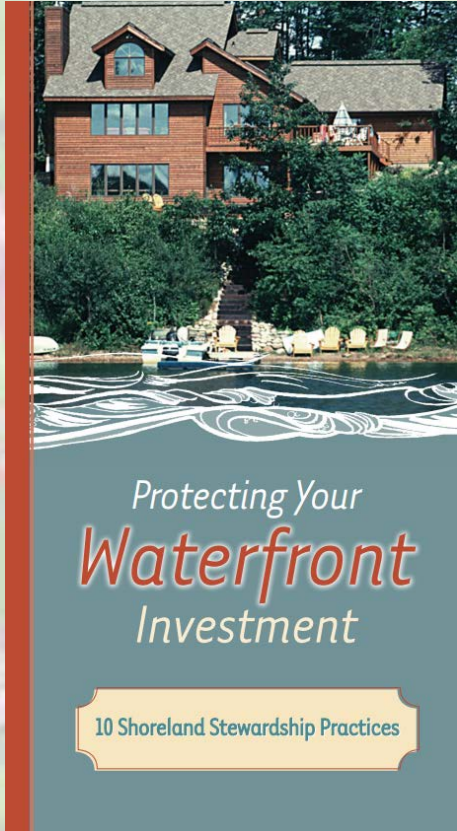
# Key Takeaways

- **Native plants along the shoreline help:**
  - **improve water quality/clarity → catches water runoff → higher property values**
  - **keep geese away**
  - **reduce erosion → remember those root photos!**
  - **attract more wildlife → provides food, habitat**
    - **less geese!**

# Spider Creek Watershed



# Resources



Protecting Your  
**Waterfront**  
Investment

10 Shoreland Stewardship Practices

Sawyer County Zoning & Conservation

## NATIVE PLANT RESTORATION

The following species are native plants to Sawyer County and are recommended for shoreline restorations and upland sites.



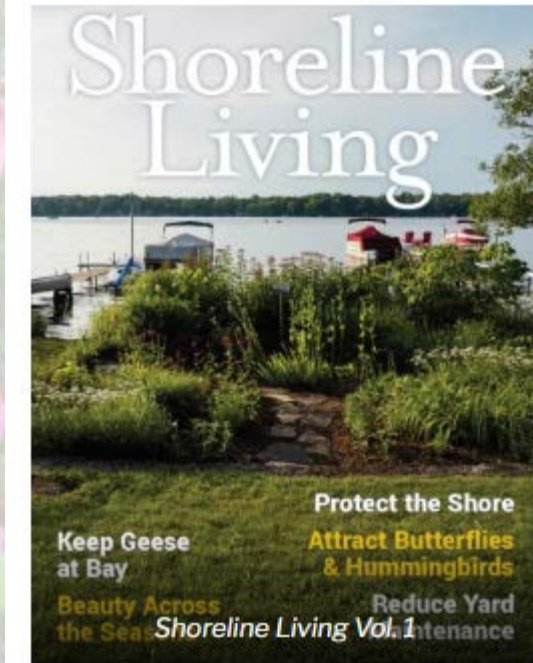
False Sunflower

Phone: 715-434-6483  
Fax: 715-438-3282  
Tim Seidl & Natalie Eifer

Sawyer County Zoning & Conservation  
10010 Main Street, Suite 49  
Hayward, WI 54843



## Shoreline Living



Protect the Shore  
Keep Geese at Bay  
Attract Butterflies & Hummingbirds  
Beauty Across the Shore  
Reduce Yard Maintenance  
**Shoreline Living Vol. 1**

## Shoreline Living

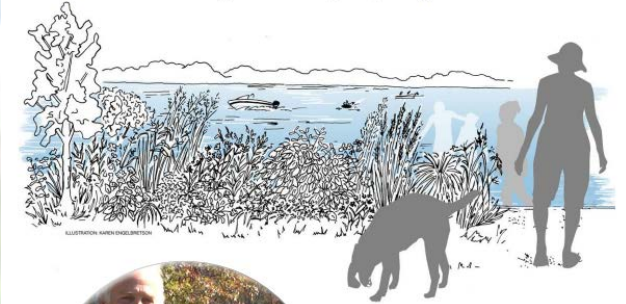


Landscaping with Nature  
A Lake Yard Goes Native  
A Hunting Tradition  
Woody Habitat for Fish and Wildlife  
A Lakefront Preserved for the Ages  
Wild Wonders of a Natural Lakeshore  
**Shoreline Living Vol. 2**



## Healthy Lakes & Rivers 350 ft<sup>2</sup> Native Planting Companion Guide

Improve wildlife habitat, natural beauty and privacy, and decrease runoff.



Native plantings include grasses and wildflowers with shrubs and trees. Choose one of the six native plant options provided - based on your property specifications and interests - from bird/butterfly habitat to a low-growing native garden showcasing your view of the water.



# Questions?

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Coordinator**

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**715-634-6463**

**Office located at the Courthouse**