

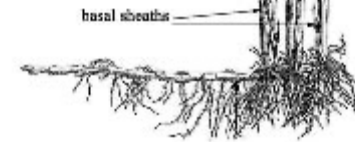
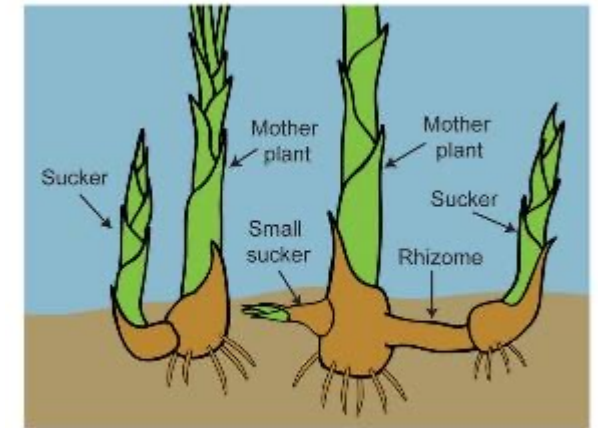


More on Lakescaping

Julia Kirkwood
Water Resources Division
Nonpoint Source Pollution Program
269-312-2760 | kirkwoodj@michigan.gov

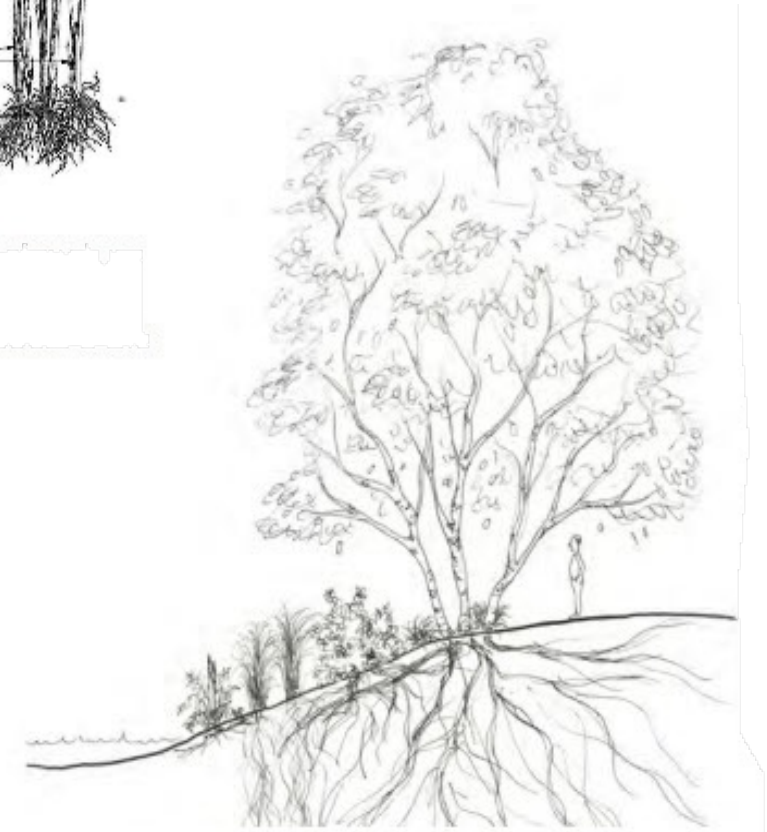
Stable shorelines require Native Plant, trees and Shrub Root systems

Example: Hardstem bulrush has rhizomatous roots. Tend to seek different water depths and produce tough root systems to hold soil and diffuse wave energy so less wave energy hits the shoreline.

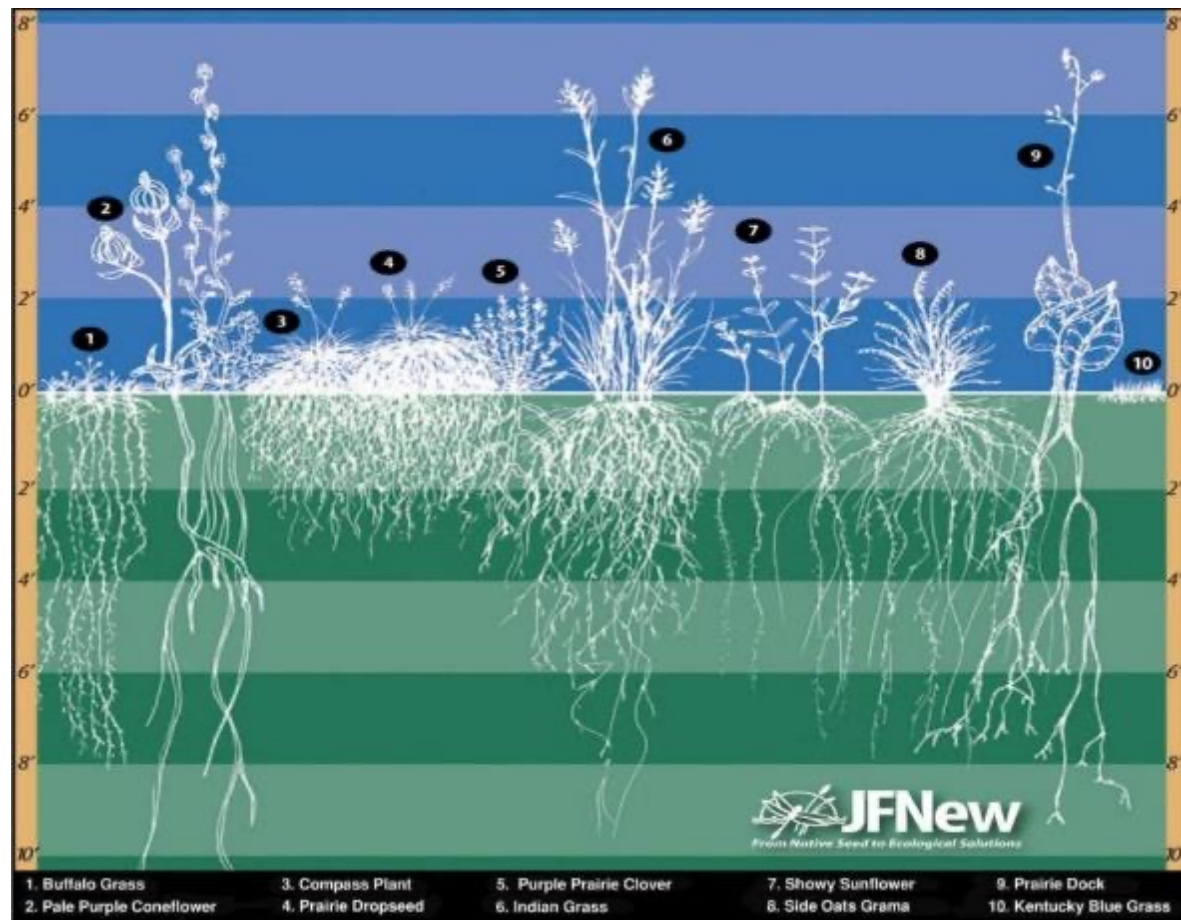


← Kentucky Blue Grass

← 8 ft.



Graphic: VT Lakewise



“Begin with the end in mind”

Stephen Covey

What do you want your landscape to do?

- *Wildlife*
- *Erosion Control*
- *Protect water quality*
- *Recreational use*
- *Aesthetics/Privacy*
- *Create a Sense of Place*





Protection Technique: Keep Natural Vegetation

Strategy: No Mow –
See what comes up then add
Little Long Lake



Photos: Julia Kirkwood

Before - 2001



Summer
2002



*Little Long
Lake*
Summer
2019



“Cues to Care”

- Include artwork, bird house, or benches

Not everyone can do everything, but everyone can do something.



Before



1st year: planted fall



Following summer



Before: Seawall
replacement on
Intermediate Lake

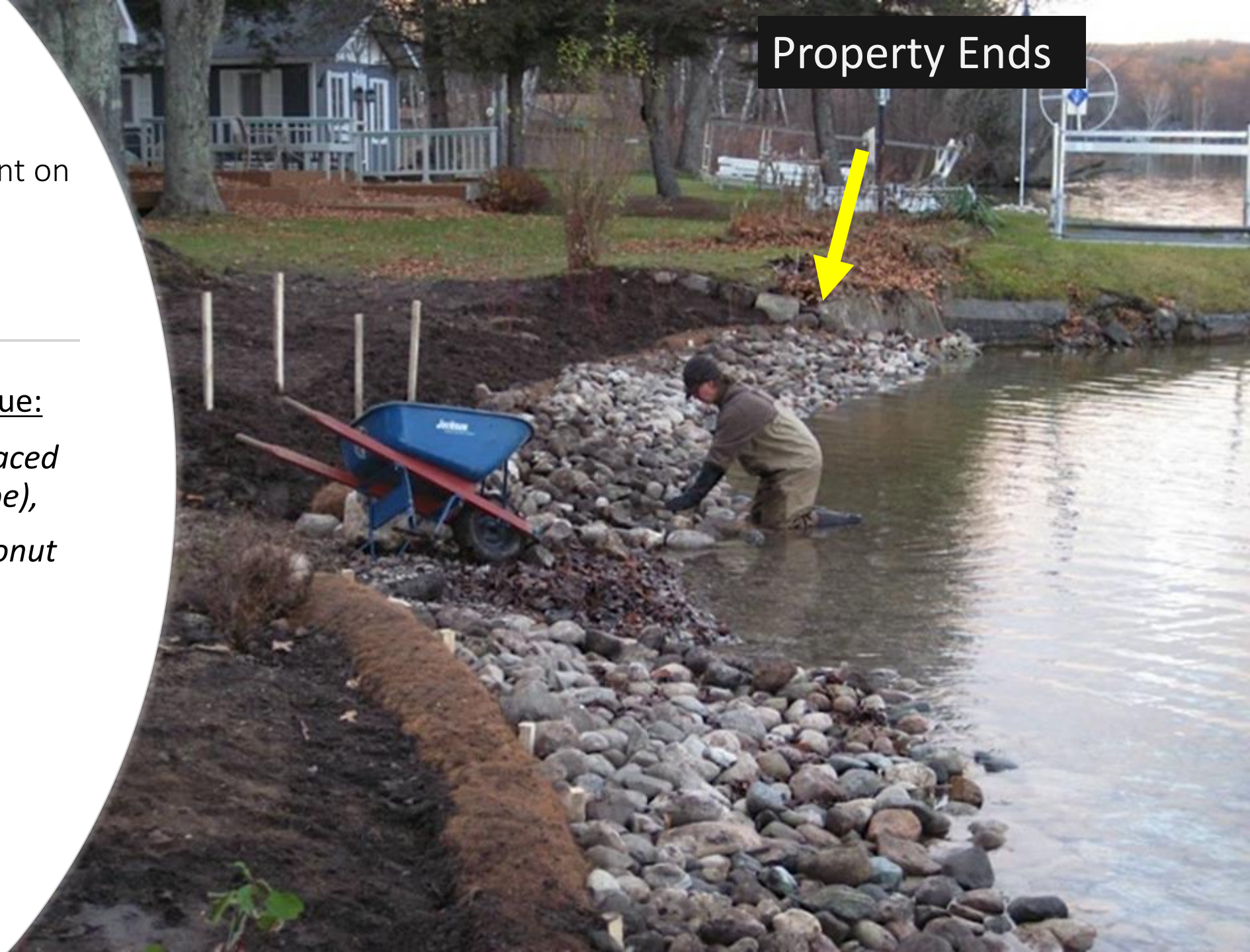
Large lake in NW MI

Property Ends

During: Seawall replacement on
Intermediate Lake
Large lake in NW MI

Bio-engineering Technique:

- *Field stone (sized and placed correctly at a 4H:1V slope),*
- *Coir fiber log (rolled coconut fiber)*
- *PLANTS*



Intermediate Lake site: 10 years later



- Next landowner installed rip rap - NOT using bio-engineering design.
- NOTICE the waves. Bio-engineered site the waves break over sooner than the Rip rap site. Less energy is hitting the Bio-engineered shoreline.



Intermediate
Lake site: 10
years later

Ice Problem?

“Ice is a problem on my shoreline, so I need a seawall!”

Notice: even with large boulders the ice still manages to push the shoreline up and back. And no root structure.



No
problem!

Create a
natural “ice
ramp”

Note: this site still needs
some vegetation for
long term sustainability

Designed correctly rock can allow the ice to run up the shoreline at an angle that it breaks up.



Pickrel Lake Site Before: 2013

Large lake with a 2-mile
fetch at this site.

Ice push and mowing to
the edge



**Pickerel Lake Site
Before: 2013**



**Pickerel
Lake 2014:
1 week
after
installation**

Note:

After only 1 week the sand
is filling in the spaces
between the rock



**Pickerel Lake
2014: 2 months
after installation**



08/21/2014

Pickrel Lake 2018

Late summer

Where's the Rock?

Edge of rock



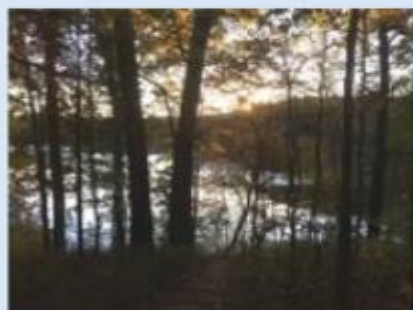
Coir
Fiber
Log



Michigan Natural Shoreline Partnership

Protecting Michigan lakes through conservation and restoration of natural shorelines

Helping You Enjoy and Protect Your Lake With Healthy Shorelines!



Subscribe to MNSP Updates

* indicates required

Email Address *

First Name *

www.mishorelinepartnership.org OR www.shorelinepartnership.org

Are You a Shoreland Steward?



www.mishorelandstewards.org

Register for an Account

Registering allows you to return to your survey information at any time, receive a certificate, print your information and more! Please read our [Privacy Statement](#) for more information.

[Start Registration](#)

Take the Survey Anonymously

Just want to see what the survey looks like? Your survey will not be saved and a certificate will not be generated unless you register and save. You can register and save your survey at any time. We want you to register as it helps us know more about your lake.

[Start Anonymously](#)

Log In

If you already have an account and would like to return to your survey,

[Log In](#)

MSU Extension Native Plants and Ecosystem Services

Getting Started

Plant Selection

Pollination

Biocontrol

Fen Restoration

Ecosystem Services

Resources

About Us

Using Michigan native plants to produce win-win situations for agriculture,
communities and the environment.

Michigan Native Plants to Provide Resources for Beneficial Insects



Anna Fiedler, Doug Landis
Julianna Tuell, Rufus Isaacs
Dept. of Entomology, Michigan State University



[Teaching Tools](#)



[Getting Started](#)

Plant Search

Search by name:

Search...

Select a Region:

[Region Information Link](#)

- ☐ Northern Lower Peninsula
- ☐ Southern Lower Peninsula
- ☐ Upper Peninsula

Soil Moisture

- ☐ Dry
- ☐ Medium
- ☐ Wet

Insect type attracted:



[Regional Plant Lists](#)

Michigan Audubon Resources

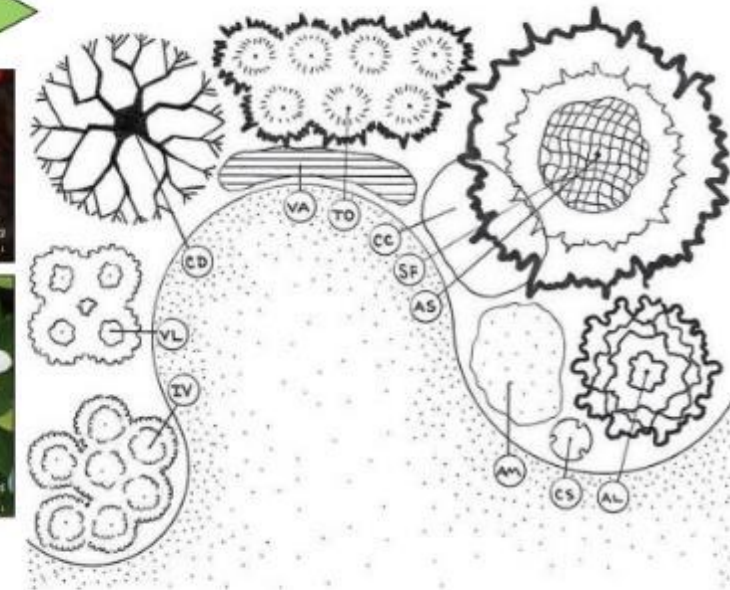
www.michiganaudubon.org

Michigan Native Garden Design

for the birds!

Berry Good Shrub Garden

Michigan Native Plants for Bird-Friendly Landscapes



Design by Christopher Hart
Hartscape
hartscapeplants@gmail.com

Symbol	Scientific Name	Common Name
AL	<i>Amelanchier laevis</i>	Allegheny serviceberry
AM	<i>Aronia melanocarpa</i>	Black chokeberry
AS	<i>Acer saccharum</i>	Sugar maple
CC	<i>Cornus canadensis</i>	Bunchberry
CD	<i>Crataegus douglasii</i>	Black hawthorn
CS	<i>Cornus sericea</i>	Red-twig dogwood
IV	<i>Ilex verticillata</i>	Michigan holly
SF	<i>Solidago flexicaulis</i>	Zig-zag goldenrod
TO	<i>Thuja occidentalis</i>	White cedar
VA	<i>Vaccinium angustifolium</i>	Lowbush blueberry
VL	<i>Viburnum lentago</i>	Nannyberry

Design Notes

These species can be found in the Upper Peninsula in most counties. They prefer moist sites but are well adapted to climate changes. There are species here for sun and shade. *Amelanchier*, black chokeberry, and nannyberry produce purple fruits late spring through fall. White cedar provides shelter and nesting sites. A sugar maple is a larval host. Ground birds will be delighted with red-fruited bunchberry, lowbush blueberries, and zig-zag goldenrod seeds. Black hawthorn has hard, red, apple-like fruit and glossy leaves. Michigan holly provides winter and spring food for migratory birds. In autumn, yellow and fiery orange-scarlet in the maple, serviceberry, blueberries, *Aronia* and hawthorn will cast a glow while bunchberry scorches the ground with maroon.

Need more ideas? Check these books out!

