Natural Shoreline Landscapes on Michigan Inland Lakes

Workshop for Property Owners

Chapter 4 (Part 1)
Design Ideas for a Natural Shoreline Landscape

Photo by Jane Herbert

MICHIGAN NATURAL SHORELINE PARTNERSHIP

Promoting Natural Shoreline Landscaping to Protect Michigan's Inland Lakes

Chapter 4 Discussion

Design Ideas for

- *Buffers*
- *Fish and Wildlife – Attracting and Discouraging*
- *Stormwater Management*
- *Shoreline Stability*

Create natural shorelines that preserve and/or restore ecological benefits to our lakes.

Different techniques can accomplish more than one goal

A design should incorporate

- Shoreline stabilization
- Homeowner needs (swimming, boat access, relaxing areas, view)
- Fish and wildlife habitat

photo: Jane Herbert

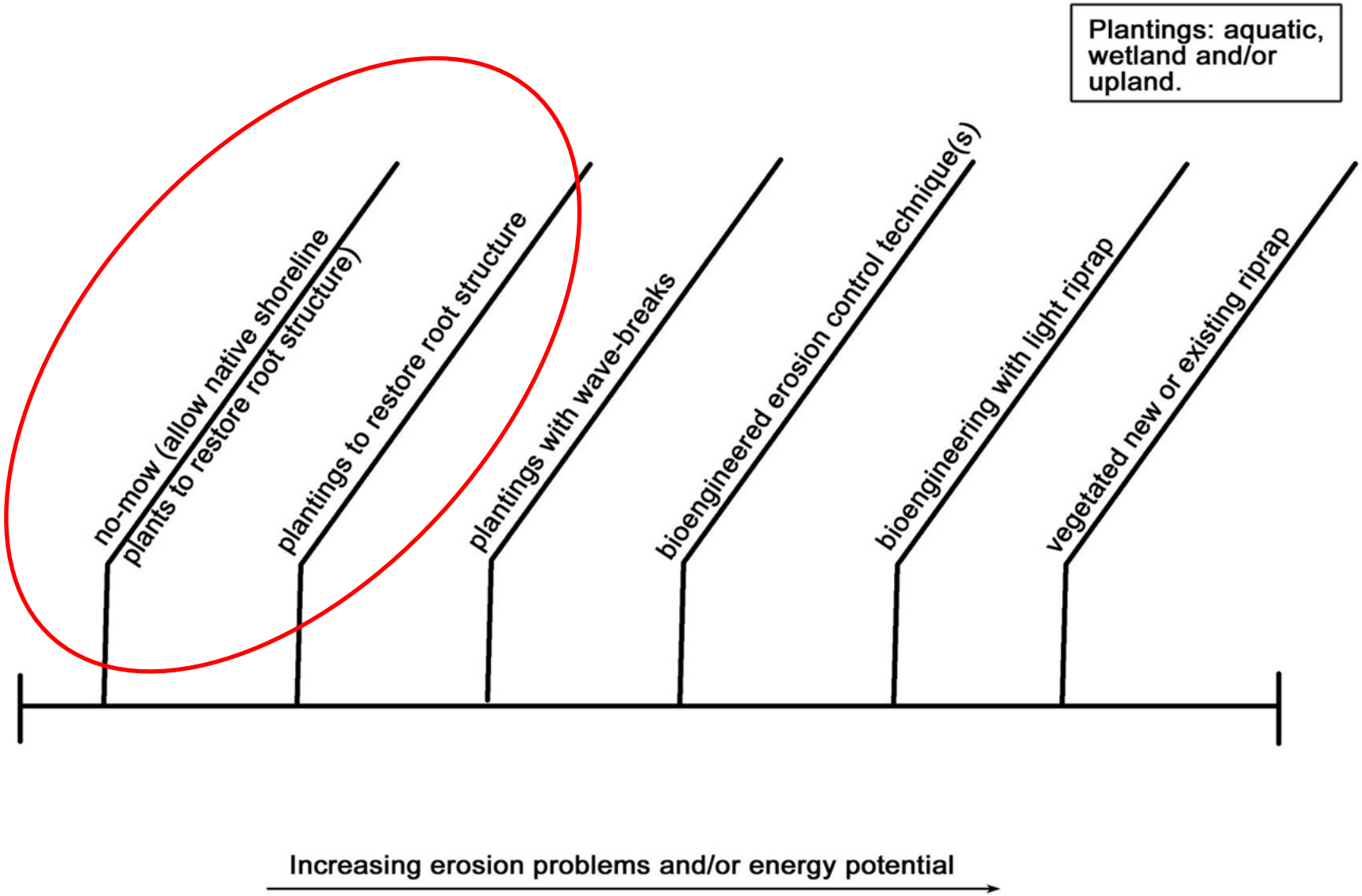
High Impact Landscape becomes a Low Impact Lake Friendly Landscape

High Impact Lake Front Landscape. *(Source: MSU Extension)*

Lake Front Landscape integrating a more manicured approach with buffers. *(Source: MSU Extension)*

Lakefront Landscape: different approach. The upland and aquatic zones are outlined. *(Source: MSU Extension)*

Natural Shoreline Erosion Control Continuum



Designing for Buffers

Buffers can be used to:

Attract Wildlife

Discourage Wildlife

Filter Stormwater runoff

Maintain a stable shoreline

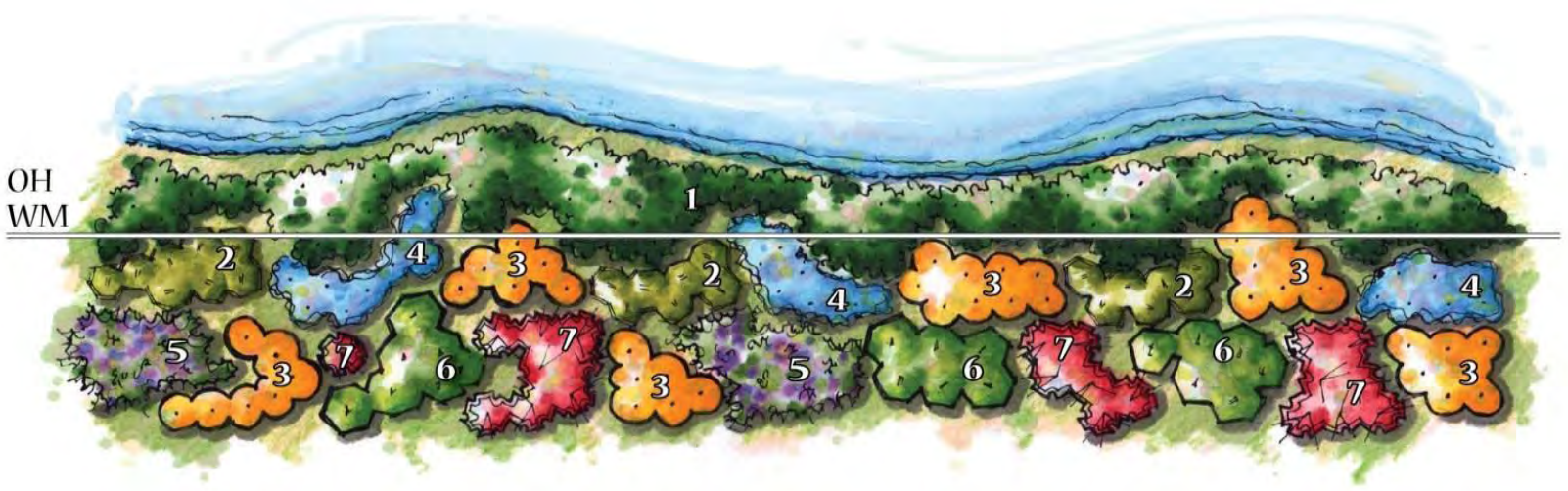
Photo: Jane Herbert

Photo: Jane Herbert

Example Buffer Design: Gradual Slope

Gradual slope: *Between Water Level and Ordinary High Water Mark* 1. Tussock sedge 2. Lake sedge. 3. Marsh Milkweed. 4. Swamp aster 5. Boneset 6. Allegheny Monkey flower 7. Great Blue Lobelia
(Source: MSU Extension.)

Example Buffer Design: Steep Slope



Steep slope: *Between Water Level and Ordinary High Water Mark:* 1. Soft rush. *Above the Ordinary High Water Mark* 2. Canada Blue-joint grass. 3. Golden Alexander's 4. Sensitive Fern 5. Dense Blazing Star 6. Canada Anemone. 7. Turtlehead. (Source: MSU Extension)

Before - 2001

Photo: Julia Kirkwood

Photo: Julia Kirkwood

Photo: Julia Kirkwood

Planted early summer 2001 – photos summer 2002

Photos: Allegan Conservation District

Photos: Allegan Conservation District

Strategies for Being a Good Neighbor with Natural Landscaping

Create	• A border of lawn, hedge, fence, path etc. to frame the landscape
Recognize	• The rights of property owners to be different; don't be arrogant about native plants
Advertise by education	• About what to expect before you start your project
Start small	• Develop your learning curve and minimize the rate of change
Humanize your landscape	• Add a place to sit, a bird house etc. to maximize enjoyment, aesthetic appeal and link people with nature

"To Mow or Grow" by Bret Rappaport in Wildflower, Spring 1996

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Chapter 4: Design Ideas Part 1

Natural Shoreline Landscapes

Designing for Fish and Wildlife

A Shoreline Landscape that supports a diversity of wildlife should

- *Contain a variety of plants*
- *Provide food and cover throughout the year*
- *Provide nesting sites*
- *Have upland, wetland and aquatic habitat components*

Diversity of Plants = Diversity of Wildlife


Photo: Amy Peterson

Insects, birds, amphibians, reptiles, fish and mammals

Trees and shrubs:

Fruit, nuts, seed, cover, nesting (evergreens for winter cover)

Grasses:

Grains, seed, cover, nesting

Flowers:

Nectar and seed

Downed woody material

Cover, nesting

Discouraging Nuisance Animals

Key Concept: ***Understand what type of habitat an animal likes best and why***

#1 nuisance animal: Canada Geese

- Are grazers
- love open expansive lawns up to edge of lake

Lawns Provide:		
Constant supply of food	No barriers	No hiding places for predators

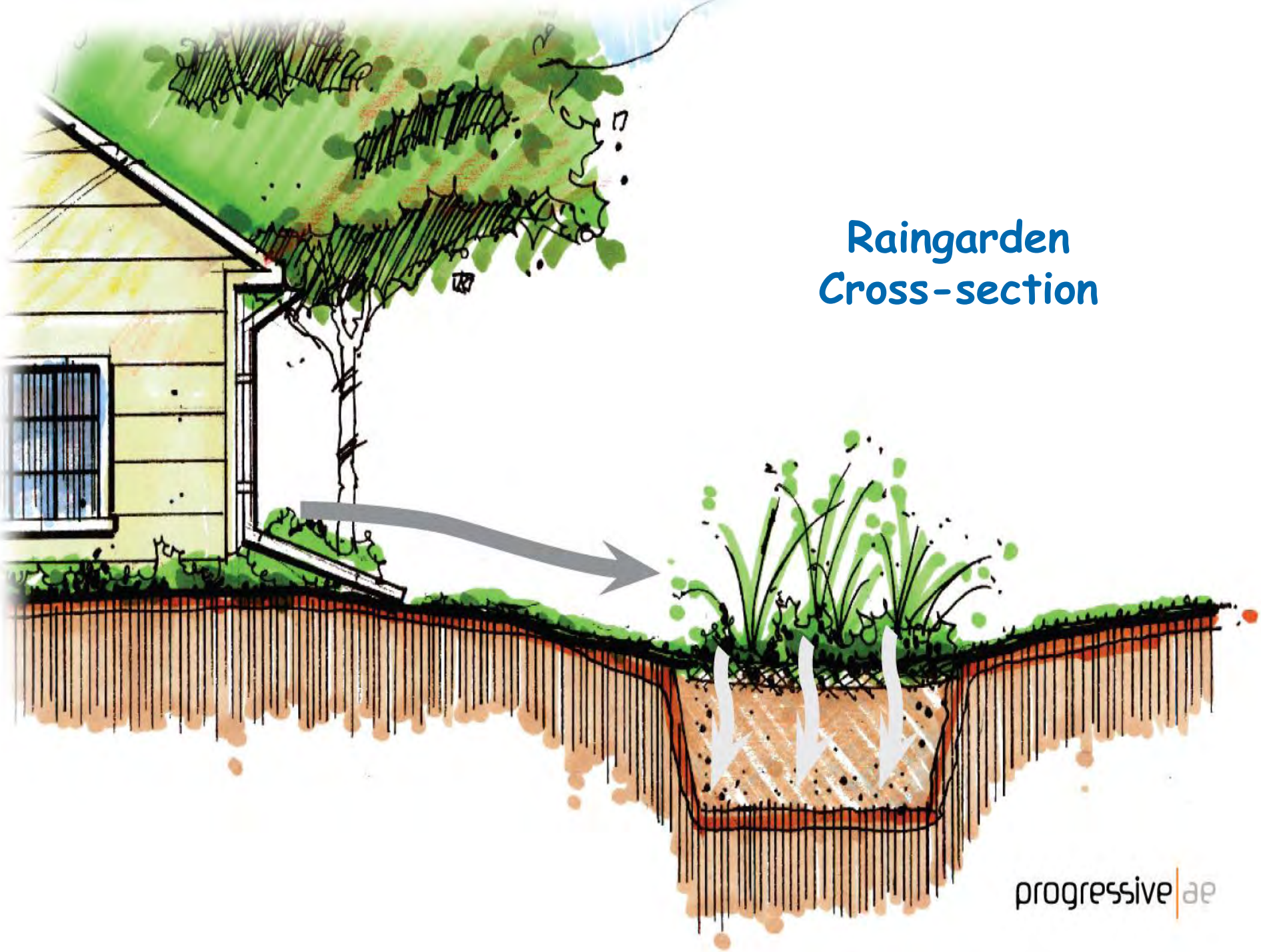
Discouraging Nuisance Animals

A well-designed buffer strip can deter geese from utilizing shoreline lawns for at least part of the year

Photo: Jane Herbert

Exclusionary measures to protect plants from waterfowl during establishment is advisable

Raingarden Cross-section



progressive ae

Residential Rain gardens

Collects and infiltrates roof runoff instead of piping directly to the lake.
(Photo taken just after completion)


Photo: Jane Herbert

Sept 2003

Summer 2005


Photos: Steve Allen

Collects and infiltrates small road and hillside runoff

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