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Updated 3/15/14
Chapter 6
Maintaining a Successful Natural Shoreline
Chapter 6 Discussion

- Key to a successful project
- Signs of Trouble
- Maintenance needs for different zones
- Invasive Species Control
- Good Stewardship Practices
Key to Success

A design is appropriate for site conditions → The project is correctly installed → Maintenance is adequately planned and implemented
Maintaining natural shorelines

- Unavoidable
- Long term success relies on a comprehensive management program
Focus on three main concerns:

- **Plant Health**
- **Weeds/Invasive Species Control**
- **Bio-engineering**
Project Monitoring

- Be familiar with scope of project
- Schedule site inspections
  - Weekly
  - After/during extreme conditions (heavy rain storm or lack of rain)
  - Seasonally: before ice in and after ice out
- Take accurate photos
- Take notes
Plant Maintenance

The Maintenance 3 W’s

- Watch
- Water
- Weed
Upland Maintenance Areas

Lawn

Rain Barrels and Gardens

Landscape Beds and Trees/Shrubs
Management of Shoreline Areas

**Plant management:**
- weed and invasive plant removal
- replacing plants

**Structural maintenance:**
- Ropes still tied
- Stakes still in place
- Rocks/logs still in place

**Caution**
Site work is subject to original permit/s or may require additional permits.

*Photo: Jane Herbert*
Signs of Trouble
Soft-Armoring (Bioengineering)

Hmm – I need to look at my shoreline!

- Are my plants still in place?
- Has the soil moved?
- What is the condition of the bank shoulder and toe?
- Are the ropes and stakes still in place?
- Are the erosion control blankets still in place?

Identify Reasons
Concentrated stormwater flows
Fluctuating lake levels
Waves and ice action
Wildlife: burrows or browsing?
Vegetation not maintained. Non-native mint invading.

Coir logs overtopped by wave action.
Concentrated storm flows causing erosion

Photo: Julia Kirkwood

Photo: Jane Herbert

Natural Shoreline Landscapes on Michigan Inland Lakes Workshop for Property Owners
Chapter 6: Maintaining a Successful Natural Shoreline
Invasive Species Control

Identify and eliminate early

Soil disturbance can lead to invasion or spreading
Invasive Species Control

Options
- **Mechanical** – pulling
- **Chemical** – spot treating
- **Biological** - beetles

Herbicide applications over standing water or Great Lakes shorelines require a permit.
Good Stewardship Practices

- Prevention costs < restoration

Look critically at:

<table>
<thead>
<tr>
<th>How pollutants enter the lake</th>
<th>Individual actions: pet waste, septic, fertilizer, sediment</th>
<th>Problems these actions cause</th>
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The most successful shoreline landscapes are often the result of a continuous cycle of monitoring, managing, and re-evaluating the management plan.