

# Sensible Shoreline Development

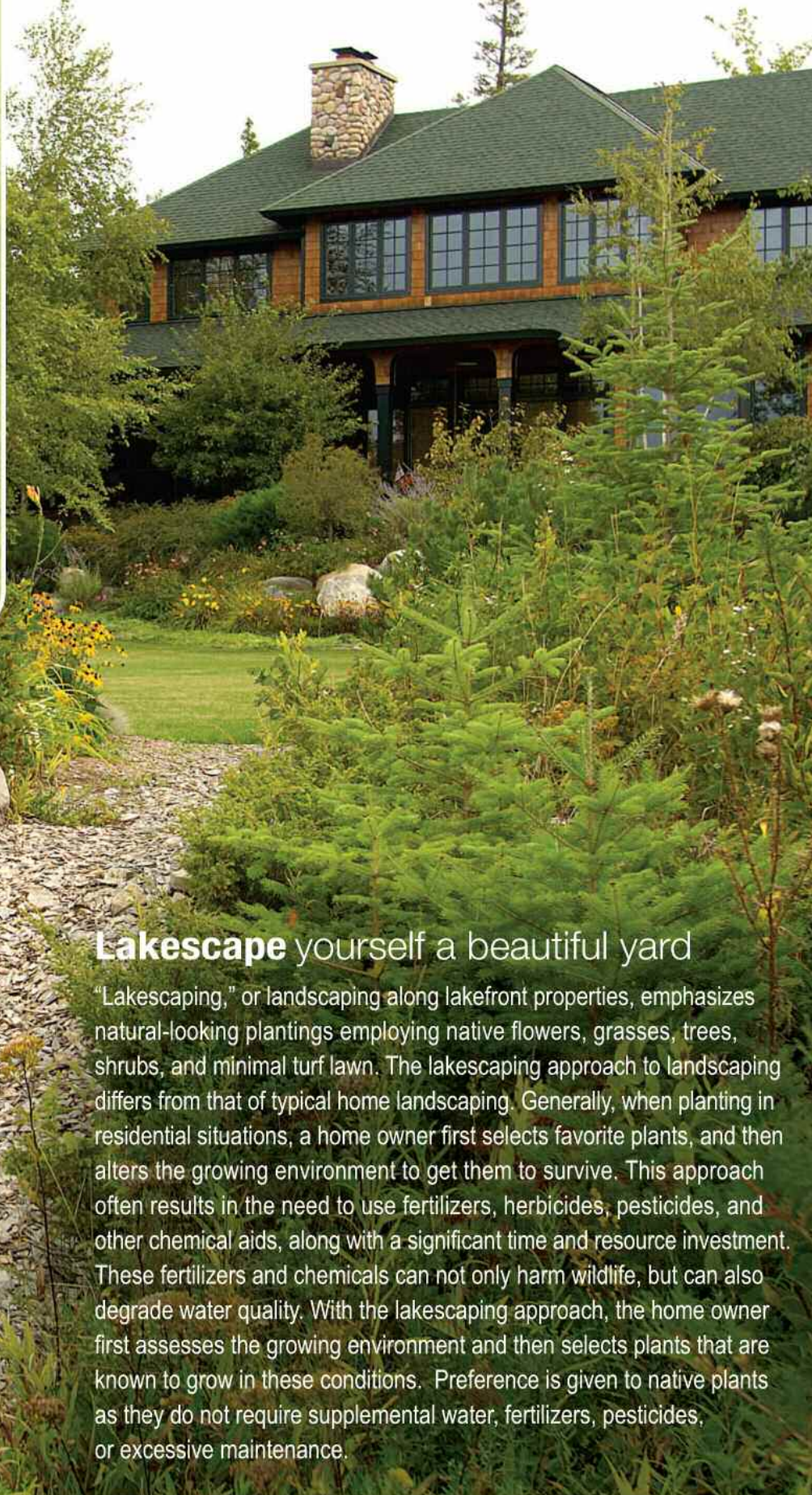
A Guide for Shoreline Homeowners



The beauty and bounty of water resources in Northern Michigan add immeasurably to our quality of life—not only for the people who enjoy them, but also for the wildlife dependent upon them. Those of us fortunate enough to live and work along lake shorelines must preserve them for future generations by reducing erosion, enhancing wildlife habitat, and protecting water quality.

### *What footprint will you leave?*

Whether you're building a new home or modifying your existing developed property, the information in this brochure will help you make environmentally sound decisions that can help preserve the character and quality of the land and water that surround you.



## Lakescape yourself a beautiful yard

"Lakescaping," or landscaping along lakefront properties, emphasizes natural-looking plantings employing native flowers, grasses, trees, shrubs, and minimal turf lawn. The lakescaping approach to landscaping differs from that of typical home landscaping. Generally, when planting in residential situations, a home owner first selects favorite plants, and then alters the growing environment to get them to survive. This approach often results in the need to use fertilizers, herbicides, pesticides, and other chemical aids, along with a significant time and resource investment. These fertilizers and chemicals can not only harm wildlife, but can also degrade water quality. With the lakescaping approach, the home owner first assesses the growing environment and then selects plants that are known to grow in these conditions. Preference is given to native plants as they do not require supplemental water, fertilizers, pesticides, or excessive maintenance.

### Did you know?

Insufficient shade along a shoreline contributes to rising water temperatures, which affects fish habitats and creates conditions for unwelcome algae growth.

**Black-Eyed Susan**



**Cardinal Flower**



**Blazing Star**



**Butterfly Weed**



**Purple Coneflower**



## Setback and enjoy the view

The building setback is the distance required between structures and sensitive shoreline resources. Building setbacks are the most effective way to relieve construction pressure on fragile bluffs and wetlands, and on valuable forest and beach-lined coasts. The recommended setback from the water's edge is a minimum of 100 feet. Your local zoning ordinance also dictates a building setback for activities within a specified distance of the lake for water quality protection. Contact your zoning administrator to learn what the minimum requirements are.

## Go **native** and **natural!**

Native plants are plants that grow naturally in your region and are best suited for the environmental conditions on your lakeshore property. Many native plants are well suited for lakeside yards and shoreline greenbelts. The deep fibrous roots of native plants help keep the soil in place, encourage infiltration, and readily absorb nutrients. Furthermore, native plants vary in their form, color, height, and environmental preferences so they easily lend themselves to many different landscapes and can add significant beauty to your lakeside yard. Additionally, once established in the right location, native plants require little, if any, supplemental care. Choosing native plants also helps avoid the spread of nuisance exotic (or non-native) plants, such as purple loosestrife.

## Show your **softer shoreline**

"Biotechnical erosion control" is an effective alternative to seawalls or oversized rip rap. This form of soft engineering provides a cost-effective, environmentally friendly, and aesthetically pleasing method for controlling accelerated shoreline erosion. Biotechnical erosion control uses smaller rock, flexible coconut fiber bundles, and plantings to emulate the natural shoreline while also preventing further erosion.

### Did you know?

Excess fertilizers, pesticides, and other materials found around shoreline home sites wash into a lake after a heavy rain. These substances can alter the water's chemical and biological characteristics, creating unhealthy conditions. If you decide fertilizing is necessary, be sure to use a phosphorus-free lawn fertilizer. The nutrient code on the fertilizer bag should have a "zero" as the middle number to indicate it is phosphorus-free.

Shoreline properties featured in this brochure were photographed on Lake Charlevoix.

## Native Beauty...

The flowers on the left are all native to this area and are beautiful when incorporated into lakeshore landscaping projects. For a complete list of Northern Michigan's native plants and where to purchase locally please contact Tip of the Mitt Watershed Council.

## With a **greenbelt**, it's easy being green

With a good building setback and your favorite native plants for lakescaping, a shoreline greenbelt is a great way to beautify your shoreline, protect your property values, and protect water quality. A greenbelt is a buffer of native vegetation between the water's edge and your lawn. Shoreline greenbelts with native plants reduce erosion by stabilizing the soil and slowing runoff, filter nutrients, sediments, and other pollution, and provide valuable wildlife habitat. A shoreline greenbelt that will provide the most water quality benefits should cover 75% of the shoreline frontage (e.g. 75 feet of a 100 foot property) and extend landward a minimum of 20 feet. One quick and easy way to get a shoreline greenbelt started is to create a "no-mow" zone. Native grasses and wildflowers are some of the first plants to appear. You can enhance your greenbelt with a variety of native plants from a local nursery.

## **Infiltrate** your lakeshore

Building a new home often results in an increase of impervious surface on your shoreline property, such as roofs, driveways, patios, and walkways. Impervious surfaces are mostly constructed surfaces where rainwater cannot infiltrate the impenetrable materials. Reducing the total area of impervious surface allows rainwater to better percolate into the soil, filtering out sediments, nutrients, oils, and other contaminants that may be collected in stormwater runoff. Improved rainwater absorption reduces the volume and velocity of runoff that heads toward the lake, and therefore minimizes or prevents shoreline erosion. Improved rainwater infiltration also helps to replenish your ground water and source of drinking water. Alternatives to traditional impervious surfaces include porous asphalt or concrete, permeable pavers, or crushed stone on driveways and walkways.

### Did you know?

Installation of **native landscaping costs 48% less** than traditional landscaping. In a traditional landscape, the frequency and intensity of mowing, turf maintenance, weeding, and early plant replacement initially keeps costs in the same general area as a new native landscape. However, after about 5 years the stresses of herbicide application, shrub and tree mortality, and other aging syndromes of a landscape that does not renew itself results in greater maintenance costs than for sustainable or native landscapes. (Source: Conservation Design Forum, Inc., Elmhurst, IL)



### **Tip of the Mitt Watershed Council**

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