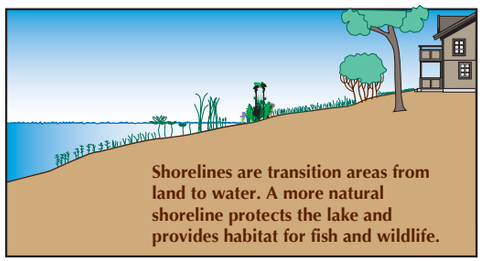
The situation

Loss of shoreline vegetation is an increasing concern around Michigan lakes. Converting natural shoreline vegetation to high-maintenance, shallow-rooted turfgrass, in conjunction with increased boat traffic and wave action, contributes to:

- shoreline erosion
- pollutant runoff
- loss of wildlife habitat



What was once a transition zone from aquatic to terrestrial vegetation around many lakes has become an abrupt dividing line between turf-grass and water, many times delineated by sea walls. The loss of this transition zone can cause problems for water quality and the ecological balance of a lake.

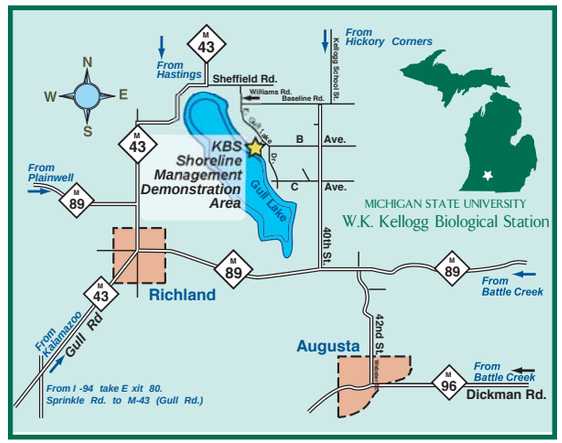
To learn more about this site and about alternative shoreline management please visit www.kbs.msu.edu/extension or call 269-671-2412.

Welcome to the KBS Shoreline Management Demonstration Area

This site has been created to:

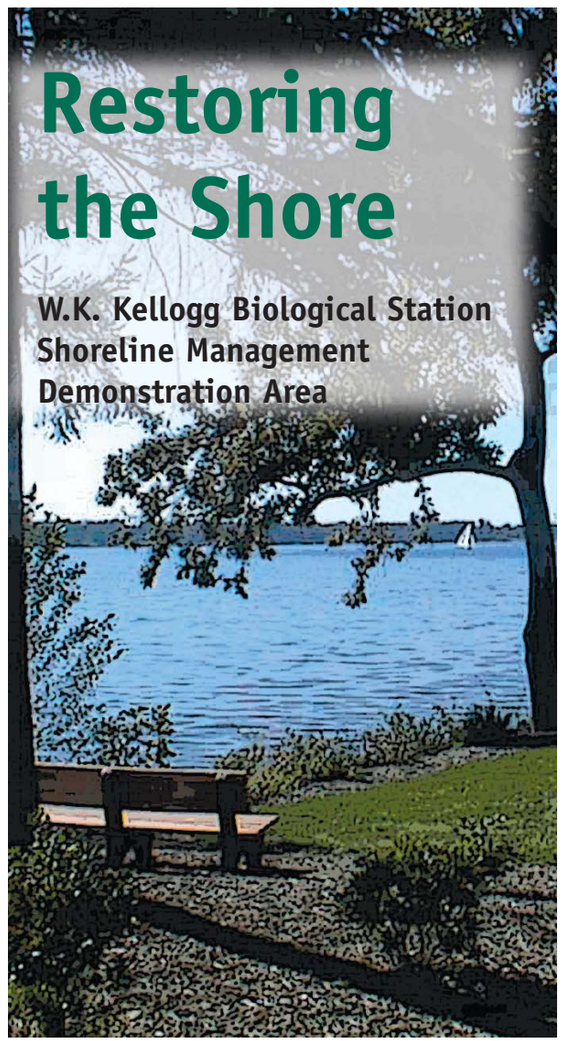
- demonstrate a variety of shoreline erosion control methods
- showcase a variety of lake-friendly landscape designs (lakescapes)
- highlight the use of native plantings to enhance wildlife habitat and slow erosion and runoff
- better manage the KBS shoreline

Please visit all four lakescapes using this brochure as a guide. There are features in each landscape that address shoreline erosion, runoff and wildlife habitat. Design solutions were developed to compliment KBS goals, address site specific problems and demonstrate as many ideas as possible. Please use your imagination as to where you would locate a beach or dock on each lakescape.



KBS Land & Water Program
W.K. Kellogg Biological Station
3700 E. Gull Lake Drive
Hickory Corners, MI 49060

Restoring the Shore



W.K. Kellogg Biological Station Shoreline Management Demonstration Area

Alternative shoreline landscapes that enhance wildlife habitat and protect water quality.

www.kbs.msu.edu/extension

MICHIGAN STATE UNIVERSITY EXTENSION

Lakescape #1

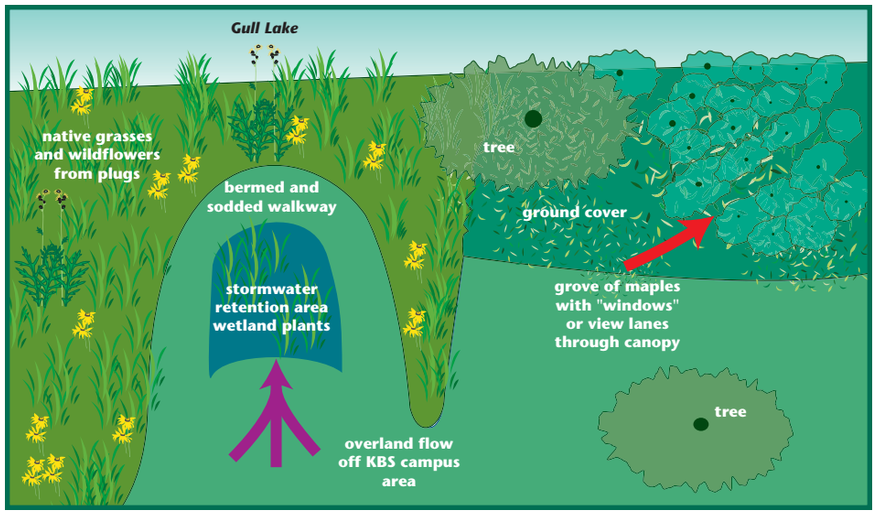
Features

Erosion control — large rocks placed in early 20th century left undisturbed.

Habitat — trees and native plants provide food, cover and nesting areas.

Lawn maintenance — turf area limited to walkway and picnic area. Existing ground cover and trees left undisturbed.

Runoff — depressional area with deep-rooted wetland plants stops overland flow to lake during heavy rainstorms.



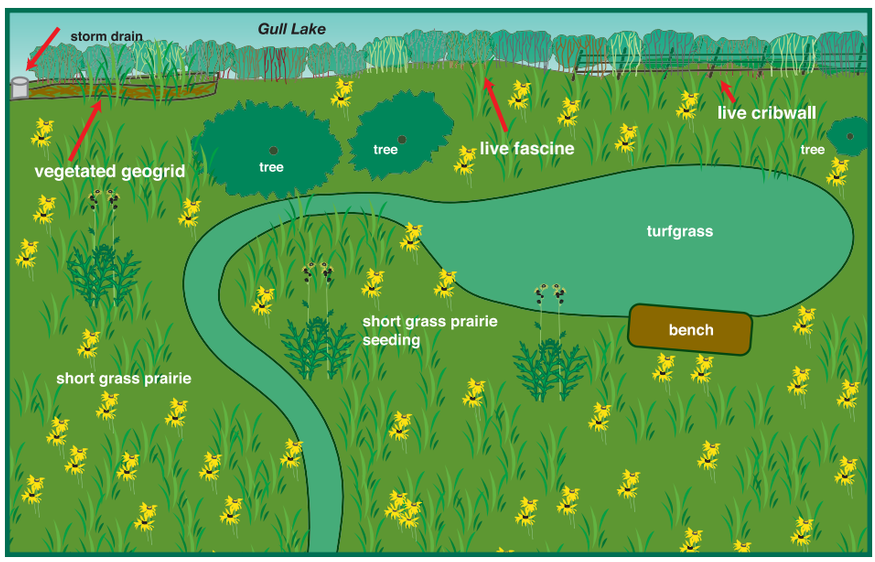
Lakescape #2

Features

Erosion control — soil bioengineered structures include vegetated geogrid, live fascine and live cribwall.

Habitat — native shortgrass prairie and woody shrubs provide food, cover and nesting areas.

Lawn maintenance — limited turf area to reduce intensive lawn care in the sensitive shoreline area and still provide a lawn area with view of lake.



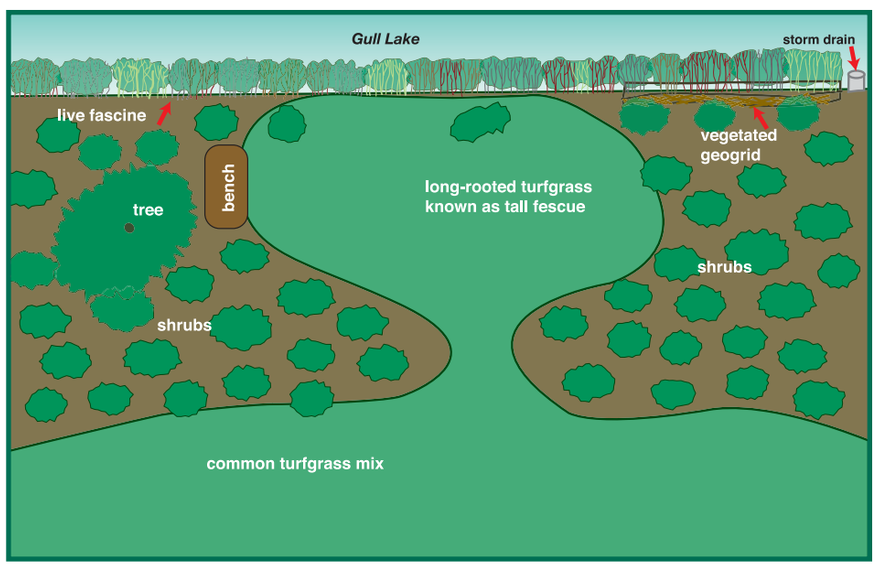
Lakescape #3

Features

Erosion control — soil bioengineered structures include live fascine and vegetated geogrid.

Habitat — native and non-native woody shrubs along shoreline and upland provide cover, food and nesting areas.

Lawn maintenance — the amount of turf to the water's edge has been reduced and planted to a long-rooted variety of tall fescue grass, reducing the need for watering, fertilizers and pesticides.



Lakescape #4

Features

Erosion control — rock riprap protects the shoreline against heavy wave and ice action.

Habitat — buffer strip of native and non-native woody shrubs provides food, cover and nesting areas.

Lawn maintenance — buffer moves intensive lawncare activities away from the water's edge.

Note: All four lakescapes are 80–100 feet wide and designed as if there was a waterfront home on each lot.