

Living Shorelines to Control Erosion, not Rocks



Shoreline Failure: Lawn down to the lake with bank slumping

When lawns are maintained all the way to the water's edge, it is a setup for shoreline failure because mowed turf grasses have short roots, resulting in bank slumping, where sections of soil separate, leaving crevasses. Piling rocks on top only leads to more erosion, as the power of the waves has nowhere to go but down and to the sides, scouring the lakebed and neighbors' properties. The loss of native plants on shore and in the water from the rocks and scouring causes algae to thrive as they take up the available nutrient runoff. Each 100 ft of shoreline in lawn leads to at least 100 pounds of algae in the water every year.



Riprap can fail from wave action and ice heaves, and rocks are one of the greatest threats to our lakes because of habitat loss leading to poor water quality



Shoreline restoration using coconut fiber-based coir logs, restoring habitat for clean water

The solution is **resilient living shorelines with native plants**. However, if the existing shoreline is mowed lawn, plants will take time to grow and stabilize the shore. **Bioengineering** offers reinforcement with natural materials such as coir logs (pronounced “COY-er”) that are built by rolling plant materials into biodegradable fiber blankets made from coconut husk. (Impermeable plastic sheeting cannot be used because it smothers plant growth.) (See video on Resource page.) Coir logs can actually build more shoreland! And they are less costly. One would think that heavy rocks would protect best, but it is the very fact that **rocks are heavy and unyielding that makes them so damaging** to living shorelines, by scouring and by loss of habitat. And what about shorelines exposed to a broad expanse of water, or “fetch”? See GCOLA’s Summer 2022 Newsmagazine about a successful Lake Steward coir log project on one of the Gull Chain’s most exposed shores. Lake Steward has cost-share funding for shoreline projects that promote clean water and healthy habitat.



This living shoreline is powerful and resilient erosion control and provides natural habitat for clean water.