

Natural shorelines: The gift that keeps on giving

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Tip of the Mitt

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Guest columnist

Imagine yourself sitting along the banks of your favorite river or on the shores of a Michigan lake. What do you hear? The wind rustling through tall, native grasses? Frogs, crickets and birds? What do you see? A natural landscape that takes you away from it all? Clear blue waters?

People have long been drawn to Michigan's waters for the beauty, recreation, and relaxation that can be found there. However, we are rapidly changing our shorelines and, as a result, we may be putting the very things we love about our lakes, rivers and streams at risk.

More and more we are seeing lawns right up to the water's edge, and this can have a number of adverse impacts. Turf grass has notoriously short roots that don't allow it to serve the filtering role that deep-rooted native plants play in keeping fertilizers and other pollutants out of our waters. Lawns entice pesky geese searching for grass as forage and wide-open spaces to spot predators. Turf grass's short roots also struggle to hold the shoreline in place, leading homeowners to pursue shoreline hardening projects.

Shoreline hardening is the use of sea walls, rock riprap and other hard structures to attempt to control erosion along the shoreline. These structures often do not accomplish their intended goals. Hard surfaces can't absorb wave energy; rather, they deflect it downward or sideways to neighboring properties. These structures also cut off important habitat and land access for some of our favorite aquatic species. When a hardened shoreline is backed by turf grass, rather than native plant species, the water will often erode the shoreline behind the rock, eventually leading to the ultimate failure of the structure.

The good news? Through the use of bioengineering, we can restore our natural shorelines and the many benefits they provide. How, you ask? Bioengi-

neering often offers an alternative approach, working with nature rather than against it. Bioengineering utilizes plants, fieldstone, and other natural materials to mimic a healthy, natural shoreline. The benefits of these shorelines are threefold: stabilization and erosion control, native habitat, and stormwater and pollution control.

Trees are the superheroes of the natural shoreline. They shade the water, keeping nearshore temperatures cool. Their strong roots do a great job of holding the shoreline in place and sucking up excessive nutrients and other pollutants before they reach the lake. Trees also provide landowners with privacy and quiet by shielding waterfront properties from passing boaters on the lake. Trees can be trimmed to provide a scenic filtered view of the water. If a property owner decides to remove some trees their shoreline for access to the water or a more open view, their roots should be left in place to prevent erosion.

In the face of increasingly severe storms and high water levels, implementing natural shorelines is an important step that waterfront landowners can take to protect their land and their investments, as well as the water quality of the lakes, rivers, and streams that they love.

When a shoreline is kept natural or is bioengineered to return to a more natural state, it is often referred to as a greenbelt, shoreland protection strip, or a natural vegetation strip. Tip of the Mitt Watershed Council and the Michigan Department of Environment, Great Lakes, and Energy recommend the use of bioengineering along our shorelines. Many local governments in Northern Michigan have regulations that provide for the creation and protection of natural shorelines.

This summer, look for the signs of healthy shorelines during your walks along your favorite waterways or your days out on the boat. Stop and listen for the sounds of healthy ecosystems. And, if you own shoreline property, consider planting some deep-rooting native plants along your shoreline to help with water quality and erosion control and to provide habitat for your favorite shoreline species.

Kacey Cook is a former policy and advocacy specialist for Tip of the Mitt Watershed Council.