Taking care of your waterfront land will **save you money** because…

- Healthy waterfront land serves many functions including water filtration, storage of stormwater, flood control, protection of water quality, nutrient cycling, and protection of shorelines and stream banks. When these areas are compromised, expensive engineering solutions may be required, costing you more money in the future.
- Waterfront properties that are well-planned and are well-maintained or well-managed may sell for more than average market value.

Let's make one thing Perfectly Clear. our water
Genesee County Community Water Quality Consortium

G-4608 Beecher Rd.
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The Water's Edge

How to protect your waterfront property and its value

Brought to you by the communities of Genesee County

We all know how important water is to us. It's just as important that the water banks are protected as well.

Follow the simple actions described in this brochure to avoid costly maintenance repairs in the future.

During a recent study, members of our field crew were approached by many landowners with questions abut how to protect their waterfront property. This brochure was developed to address some of the questions you and your neighbors may have about soil or bank erosion.

Whether you have property next to a lake, river, or stream, you reap benefits from your waterfront land almost daily. Not only is your property value enhanced, but issues important to everybody including water quality, wildlife and fish habitat, and recreation use depend on your healthy, maintained waterfront land.

This brochure was written for the Genesee County *Our Water* Campaign, the public education effort of the Genesee County Water Quality Consortium. The Genesee County Water Quality Consortium is a collection of municipalities. These dedicated people work to bring awareness, to educate and to promote stewardship on ways to prevent stormwater pollution and keep our water clean. Funding for this newsletter was provided by the Genesee County Water Quality Consortium.

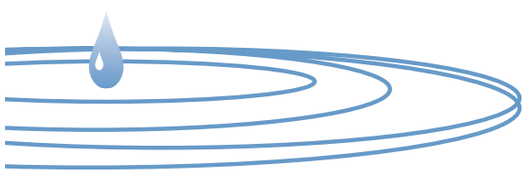
Stabilize stream banks and shorelines.

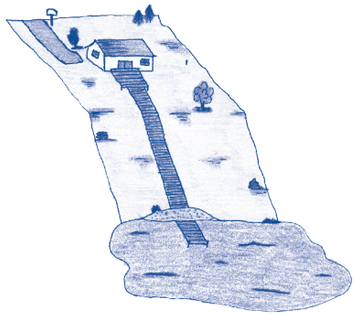
The continued wearing away of soil and sediment from a stream bank or shoreline is called erosion. This process can be accelerated or slowed by the actions we take. Altering land to create open areas along rivers, lakes, and streams can quickly result in erosion of property along the banks. Not only is property lost every time it rains, but when too much soil or sediment enters the nearby lake, river, or stream, it can be considered a pollutant.

To prevent erosion on your property and save yourself time and money, try these techniques to create a naturalized stream bank or shoreline…

Build plant buffers.

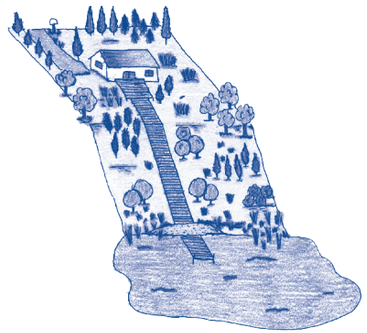
- Before your property was developed, your nearby lake, river, or stream was surrounded by native plants, trees, and shrubs that acted as natural water filters and held soil in place. Rooted plants such as wildflowers, shrubs, and trees can stabilize eroding or sensitive slopes.
- A good buffer strip is wide (30 feet), continuous, and dense with shorter plants nearer the water and taller plants and trees planted further away. Engineered structures like seawalls can reduce animal and plant habitat and are only recommended in erosion-prone locations.
- To save yourself time and money, avoid mowing your lawn up to the edge of the water. Letting the lawn closer to the edge of the water grow tall with grasses and shrubs can help stabilize your stream bank or shoreline. Minimize disturbance at the edge of water.





The banks of this property will erode over time because there is little vegetation to keep the stream bank held together.

The banks of this property will not erode over time because there are plant buffers and deep roots to keep the stream bank held together.



What is a plant buffer?

A plant buffer is a strip of trees, shrubs, and other plants along lakes, rivers, and streams that traps runoff before it flows into nearby water bodies. As water seeps through a plant buffer, the plants hold soil, filter out pollutants, regulate water flow, and moderate water temperatures.

Not sure building a buffer is a good choice for your property? Consider these material costs:

- Maintaining an existing plant buffer = $0
- Building a plant buffer = $10 per foot
- Installing "riprap" (concrete blocks or large rocks along the edge of water) = $30-40 per foot
- Installing a sea wall = $65-100 per foot

The listed prices are simply cost estimates. Actual costs will depend on many factors including, location, availability of materials, permits, grading, labor, and maintenance.

Keep it legal! Make sure to obtain the proper permits before working along the water's edge. Check with the Michigan Department of Environmental Quality (1-800-662-9278) and your local township office to see if you need one.

Minimize disturbance at the edge of water.

- If you have swimming area, try to make it as small as possible.
- Avoid pulling out aquatic plants. This will save you both time and effort! Plus, aquatic plants provide habitat for local organisms.
- Also consider mowing only a small trail from your property to your streambank or shoreline.

Mow better and mulch clippings.

- Keep your grass cut high – set your lawnmower cutting height to 3" to hide clippings, help the grass develop deeper root systems, and defend against weeds and drought.
- Leave grass clippings on your lawn – they make great natural fertilizer. Leaving them will also save you bagging time!
- Don't guess, soil test. A soil test will tell you what, if any, fertilizer is needed in your yard. Contact your Michigan State University Extension county office for more information.

Cover bare spots on your lawn.

- Establish vegetation on all bare areas.
- Temporarily stabilize these areas with mulch to minimize erosion.

Create porous walkways.

- Design paths that follow natural contours to reduce risk and create a more visually interesting landscape.
- Use porous paving material such as wood decking, bricks, or interlocking stones instead of asphalt or concrete.

Reduce Runoff.

- Collect and reuse water in rain barrels to water trees, shrubs, and lawn, and save money.
- Install rain gardens in low areas where water collects.

Remove invasive plants and go native.

- Use native, low maintenance plants like grasses, wildflowers, shrubs, and trees on your property. Native plants are better able to tolerate Michigan's climate, require less fertilizer and water, are more disease resistant, and will attract wildlife.
- Invasive plants should be removed and replaced with native vegetation. But first, make sure to know about the invasive plants you pull out – you might actually make the problem worse if you don't remove invasive plants properly.

5 Common Southeast Michigan Invasive Plants:

- Purple Loosestrife (*Lythrum salicaria*)
- Common Reed or Phragmites (*Phragmites australis*)
- Frogbit (*Hydrocharis morsusranae*)
- Eurasian Watermilfoil (*Myriophyllum spicatum*)
- Curly Leaf Pondweed (*Potamogeton crispus*)

Color images of these five common invasive plants can be found at the *Our Water* Campaign website:

www.ClearGeneseeWater.org/invasiveplants

Information for this riparian landowner's brochure was gathered from the following resources and was adapted for the needs of the Genesee County *Our Water* Campaign.

- Huron River Watershed Council, Get Buff! Shorelines need muscle to keep our water clean. Informational Handout.
- Lake County Stormwater Management Commission, Riparian Area Management: A Citizen's Guide. Informational Booklet, 2002.
- Michigan State University Extension, Home*A*Syst: Managing Shoreline Property to Protect Water Quality. Informational Booklet WQ-52, May1999.
- Oakland County Drain Commission, Waterfront Wisdom: Healthy Habits for Clean Water. Informational Booklet.
- Oakland County Planning & Economic Development Services, Discovering your Community's Natural Asset. Informational Poster.
- University of Minnesota Extension Service, Protecting our Waters: Understanding Shoreline BMPs. Factsheets.
- Genesee County Water Quality Consortium, Seven Simple Steps to Clean Water. Informational Brochure, 2008.