

# Shoreline Erosion

The shoreline of any pond or lake is an important barrier that helps keep the water clean and prevents it from filling up with mud and debris.

Shoreline erosion is a natural process that takes place over time. There are many reasons why it tends to erode, but also many things managers can do to help stop it completely. In Heritage Harbour, the Masters Association is responsible for the identification and remediation of pond erosion. Over the next year you will see these remediations taking place. Have questions or concerns? please contact Lee Weiss at [lweiss@theiconteam.com](mailto:lweiss@theiconteam.com)

## What Causes Shoreline Erosion?

We're going to look at what causes shoreline erosion and how to prevent it from happening in the first place. Water is an incredibly destructive force. From the Colorado River carving out the Grand Canyon to glaciers carving out entire valleys, it shapes and moves the earth as it sees fit. On a much smaller scale, the water of your pond or lake routinely laps at the shoreline 24 hours a day, seven days a week. The lapping wave action carries small soil particles into the water. This is on a calm day.

During wet weather, raindrops and rivers of water will move huge amounts of soil from the banks and shoreline into the water. Bank erosion is the leading cause of shoreline damage. As time goes by, it chips away at the underlying soil until the entire bank slumps into the water.

Here are a few things can be done to help prevent shoreline erosion:

**Native Grasses and Plants** – start planting as many native plants and grasses. These native plants and grasses will form deep roots that hold the soil in place and help divert water flow into the pond or lake.

**Use Rip Rap-Rock** – Rip rap-rock is a word that is used to refer to rocks and stones that range in size and shape from five to about 35 inches in diameter. River rock, granite, boulders, cobblestone, and fieldstone can all serve as rip rap-rock.

They help stabilize shorelines and protect areas that are prone to erosion. Many HOA and golf course pond managers will use them to help stabilize soil slopes that tend to seep or contain poor soil.

**Build a Berm** – An earthen berm that's covered in grass or other vegetation around your pond can also help prevent soil erosion. While it may not look very aesthetic if you build it too high, it's a great way to channel rainwater into an area that's covered in rip rap-rock.

**Fix the Bank Slope** – This method of helping prevent shoreline erosion is often more costly and time-consuming. If your pond or lake has a steep bank with a slope that's greater than three feet of width for every one foot of height, it's guaranteed that it can and will erode over time if it's not stabilized.

**Change the Soil** – Changing the soil type is another potentially costly and time-consuming way of protecting your shoreline. If you currently have sandy soil, it has less structural integrity and is more prone to erosion. Even the smallest of pond ripples can have a detrimental effect on sandy soil. Consider changing out (or at the very least adding) a soil type that contains a fair amount of clay, which can help with preventing water from eroding the soil.

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