

Gardening by Subtraction

Maintaining a healthy waterfront buffer.

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Photo to be credited: Dr. Sean E. McGlynn.

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Do you live by a lake or stream in Leon County? If your answer is “yes” then you need a shoreline buffer. A buffer is a transition zone from your yard to the waterbody. Upland plants, like those in your yard, need dry aerobic soils. Aquatic plants live in water saturated anaerobic soils. The plants in your buffer should be wetland plants adapted to this mostly wet but often dry transitional zone.



A buffer can reduce the impact your yard has on the lake by filtering and removing pollutants that wash into lakes with every storm. These can include clippings, pesticides, and pet droppings, but common fertilizers are the worst problem.

Many of us give our lawns a lot of fertilizer. Commercial fertilizers contain the nutrients plants need to grow, like nitrogen, phosphorus and potassium. These nutrients may be good for your lawn but they're bad for our lakes. Most commercial fertilizers are water soluble, meaning the nutrients are picked up and carried with every rain.



Fertilizers make our lawns green but cause algae to grow in our lakes. One cup of commercial fertilizer can cause an algal bloom in 16 acres of water. We want healthy plants in our yards and open water in our lakes. Lakes choked with plants and algae are not nice. We want our yards to be nutrient rich, our lakes need to be nutrient poor.

So, the shoreline buffer helps guard against those nutrients washing into the lake. What should a shoreline buffer look like? What plants should be in it? Try to imagine what the shore of the lake looked like before people lived there. This can indicate which plants would do best.

Lakes with stable water levels are often rimmed with stately cypress trees. That is a good buffer.

Most of our lakes are 'Karst' or 'Disappearing Lakes' which have variable water levels. Live Oak Trees usually mark the high water line. They sicken and die if their roots are flooded for more than a month. The space between the oaks and the water is typically a grassy herbaceous buffer.



Our presence has had other effects. Natural fires, common in the past, are discouraged in residential areas for obvious reasons. Fires tend to suppress the growth of hard woods and stimulate the growth of grasses. Grazing animals once foraged on our lakefronts. Yes, we even had bison. This had a significant impact on the plants growing in buffer zones.

Grassy herbaceous buffers are efficient at removing pollutants. A thicket of grass blades presents an efficient barrier to pollutants, yet does not obstruct your view. The fibrous root systems of grasses are better at removing nutrients than the deeper taproots of woody plants. The best way to maintain your buffer is 'gardening by subtraction'.



The plants you need are already there. Subtract unwanted plants like invasive exotic Chinese Tallow Trees. Some native trees, like willow and titi, can also become a problem as they spread so quickly. The most common grass found in natural buffers in Leon County is Maidencane (*Panicum hemitomon*). It rarely grows over 3 feet tall and is

excellent habitat for fish and birds. Color can be added to your buffer by encouraging the growth of Hibiscus, Swamp Lily, Pickerelweed, or Fragrant Water Lily. Experts like Jess VanDyke (FDEP) and Kathy Burks (IFAS) recommend the document “*Plants for Lakefront Revegetation*” by John Rogers, available online at:

<http://www.dep.state.fl.us/lands/invaspec/2ndlevpgs/pdfs/Circular4.pdf>.

Grassy herbaceous buffers are good for lakes. They protect your lake, are beautiful to look at and do not obstruct your view. A wooden dock or pier can help you access your lake without disturbing the buffer. A good buffer protects your lake.

