

Is Your Lawn Helping or Hurting The Water Quality of Your Lake

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Yesterday, I had the opportunity to take an out-of-town family member for a boat ride up the Blackwater. It was an outstanding August afternoon to enjoy the sunshine, fellowship of family and the beautiful waters of Smith Mountain Lake. My sister-in-law, who is a realtor in Raleigh was quick to tell me how impressed she was with the beautiful homes lining the Blackwater river. I agreed until, as a dedicated member of the Smith Mountain Lake Association, I noticed how many homeowners are growing grass down to their rip rap. I thought to myself, “beautiful houses but, boy oh boy do these homeowners need a buffer garden between their rip rap and grass.”

You see, growing grass down to our rip rap provides a runway for pollutants and contaminants to flow directly into our lake water. The US Environmental Protection Agency has reported that runoff from lawns, roads and rooftops is a primary cause of pollution in our waterways. The extra fertilizer from lawns, oil and gas from driveways, soil from building sites, litter, pesticides, herbicides and salt are polluting our lake. And the easiest path for these bad actors to access our pristine water is across our grass. This problematic flow causes many issues with water quality, the most challenging being the growth of algae. Nutrient pollution from landscape runoff can cause explosive algal growth. As the algae die and decompose, they consume dissolved oxygen in the water to the detriment of fish and other organisms that need it. Erosion can cause turbidity (cloudiness) in water, reducing the amount of light penetrating the water. This inhibits growth of aquatic plants that fish depend on. Actually, in the summer the situation is exacerbated due to warmer water which leads to less oxygen available in the water.

This past March, I wrote about the damage development around lakes have caused in the state of Minnesota. Over the last half-century, quaint lakeside cabins have been transformed, by the thousands, into mega-homes with large fertilized lawns running to the water's edge. Unfiltered runoff has remade these lakes into a nutrient soup that's quite literally suffocating fish and other native species within them. This year's early halt to walleye fishing on Mille Lacs, the state's most popular fishing lake, is a particularly ominous example. “It's death by a thousand cuts,” said Peter Sorensen, a fisheries expert at the University of Minnesota and one of a number of scientists who consider the damage irreversible, given the added realities of a warming climate and a stiff political resistance to land-use changes needed to restore central Minnesota's lakes. Over the next few generations, those lakes will die.

The issue is coming close to home here in Southwest Virginia. A recent article entitled, ***Toxic Algae Bloom Advisory Issued For Spotsylvania County Lake. The toxic blue-green algae can be harmful to people and fatal for pets, the Virginia Department of Public Health warns residents*** by Megan VerHelst of Patch Staff discusses the health advisory issued for Lake Anna.



With the advisory, The Virginia Department of Public Health warned people and pets of the dangers on swimming in waters where harmful algae blooms are growing. Test results indicate samples collected July 30 at sites within these areas contained potentially harmful algae — or cyanobacteria — exceeding safe swimming levels. The Department of Health advises both people and pets to avoid swimming and other water activities such as windsurfing, all of which pose a risk of ingesting water or exposure to skin.

So, what can we do to make sure this doesn't happen here at Smith Mountain Lake? An easy step we can all take to protect our lake is to plant a *Buffer Landscape* garden at our shoreline. As you ride around the lake, take note of our neighbors who have planted natural gardens along the shoreline that has trees, shrubs and perennials beautifully planted. Areas like these serve as a buffer or filter for runoff, catching sediment, debris and pollutants BEFORE it reaches the lake. The plant roots hold the soil, slowing erosion thus helping water clarity as well as protecting the aquatic habitat. Trees and shrubs near the water's edge help shade the water keeping the water temperature cooler which improves the habitat for amphibians, fish and other aquatic life. Buffer Landscaping promotes the ideal that lakefront homeowners can have a beautiful lakefront while being lake friendly and environmentally sound.



The SMLA Buffer Landscape volunteers are made up of Virginia Master Naturalists and Virginia Master Gardeners. These folks will work with homeowners to develop garden plans that are designed to manage erosion and provide a natural buffer or filter that will keep harmful sediment, and pollutants out of our lake. It's an easy collaborative (and free) conversation with the homeowners who are in charge of the plan. Our Master Gardeners and Naturalists simply provide recommendation based on what the homeowner tells us they want. The meetings are held at the homeowner's shoreline where our Master Gardeners and Naturalists work with the homeowner to develop a plan best suited for the homeowner's goals. It's that simple.

If you're interested in getting started give us a call at 540-719-0690 or e mail us at TheOffice@smlassociation.org.