Dock Safety Begins with Maintenance

Please check your dock for loose boards or other maintenance needs before the busy recreation season starts. Dock maintenance of all types requires a permit before the work is started. What are the guidelines for repairing and maintaining docks? Please stop by the Lake Warden’s office at Lake Bowen or Blalock to pick up the information or access online at spartanburgwater.org.

Failure Is Not An Option:
SEPTIC SYSTEM MAINTENANCE PROTECTS THE ENVIRONMENT

How well does your septic system function? Unfortunately, this is not a question most people consider until there is septic system failure.

Unfortunately, this is an “out of sight, out of mind” issue. You can flush the toilet, run the shower, drain the tub. And that means everything must be good, right? Not always.

A septic system must be maintained. Your tank is only a component of a much larger design. The septic tank is typically a 1,000 gallon concrete box in the ground roughly 5’ – 10’ from where the 3” or 4” pipe leaves the home. Its purpose is to trap the solids, grease and oil you send down the plumbing. Attached to the end of the tank is a septic drain field. Most of the drain fields in our area are currently designed with 100’ long 3’ wide trenches per bedroom. Therefore, most three-bedroom houses have 300’ of drain line, 4 bedrooms equals 400’, etc. Depending on the available space and site topography, the 300’ of drain lines could be two lines or as many as eight.

The 1,000-gallon tank can become full of water within it two weeks of use. However, once it fills up, the tank will function as a pass-through device. If 100 gallons is sent through the plumbing, 100 gallons is pushed out of the tank and into the drain lines. Once in the drain line, it seeps gradually into the soil below. The bacteria in the soil devour the bacteria and nutrients. When the water eventually reaches the water table, it has been freed from all pollutant concerns. When operating correctly it’s a very natural and effective means of septic water dispersal and treatment.

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SOUNDS SIMPLE ENOUGH. SO WHAT'S THE BIG DEAL? HERE ARE SOME ISSUES THAT ARE COMMON TO DRAIN FIELDS:

• The septic drain field was undersized during the permitting process. Your yard needed 120’ per bedroom due to prevalence of rock and heavy clay but the inspector incorrectly allowed 80’ per bedroom based on a sandy clay loam in the area he augured during the initial site inspection.

• The system was installed under saturated soil conditions and the clay sidewalls and drain line bottom were smeared shut during the digging. Instead of percolating, the drain lines act like a bathtub with a nearly plugged drain.

• Line connection pipes were collapsed accidently by contractors using heavy equipment (track hoes, trucks, loaders). The new system might then allow for one saturated line but the lower two lines remain completely dry and inaccessible.

• Clogs occur at either end of the septic tank due to misuse of the plumbing. It’s not a trash can! The system is not designed to handle anything other than solids, toilet paper and very limited amounts of oil and grease. This includes food scraps. Garbage disposals hurt the function of the septic tank.

• Leaking toilets can saturate any drain field. A slow drip adds up to hundreds of gallons before you know it.

• Failure to pump out a tank. The sludge on bottom and the scum layer on top of the water grow within a tank and eventually reduce its holding capacity and corresponding holding time. This problem will lead to solids, grease and oil entering the drain field. Drain lines don’t percolate well when clogged with solids, grease and oil. By the way, additives do not work well because the septic tank lacks sufficient oxygen. Save your money.

• Tree roots don’t help drain lines. Yes in the growing season they will “drink” from the drain field; but during the winter the roots just takes space the water could otherwise go. Think of a bathtub partially filled with the children’s toys. Not much room is left for you.

• The tree roots can follow the water back to the connection line pipes. Instead of a 3’ wide trench, the roots are squeezing into a 3 or 4” connection pipe. This condition is similar to the collapsed pipes described earlier. The flow is reduced or stopped, and thus entire lines become inaccessible.

• Grading of the surface (removal of soil) too close to the drainlines. You don’t want to give the water an easy path to the surface.

• Driveways, garages, pools or home additions on top of or in the vicinity of the drainlines. Remember this area of your property is off limits to construction of any sort.

SO WHAT SHOULD I DO TO BE A CONSCIENTIOUS OWNER OF A SEPTIC SYSTEM?

• Get a copy of your septic permit issued by SC DHEC by contacting the Spartanburg County Health Department. It helps to know what you’ve got and where.

• Remove your garbage disposal from the kitchen sink.

• Don’t flush anything beyond what is necessary. That means no baby wipes, hygiene products, excessive grease, etc. The septic tank will not break down these products.

• Fix leaking toilets.

• Get the septic tank pumped every five to 10 years depending upon number of people in the home. More people using the system means it should be pumped more frequently.

• Don’t plant trees around the septic tank or near the connection lines.

• Leave some room or your property for a repair job. All drain fields under

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Hexastylis naniflora: HELP US PROTECT AND PRESERVE A THREATENED SPECIES

Hexastylis naniflora: It’s not a phrase that comes up in everyday conversation. But, as a lakeside resident, you’ve probably encountered this evergreen plant, with heart-shaped leaves, on an everyday basis. According to the U.S. Fish and Wildlife Service, it’s considered a threatened species, and we need your help to protect it.

It’s also known as a dwarf heartleaf. One of the largest known populations grows around Lake Blalock, the drinking water reservoir and around its tributaries. As a lakeside resident, it’s important for you to be able to identify the plant so that you can participate in our efforts to preserve it for the benefit of our natural ecosystem.

Hexastylis naniflora is an evergreen plant, with heart-shaped, leathery, dark green leaves. The stalks are long and thin, originating from an underground root. The plant’s flowering period is from mid-February to late June. Its jug-shaped flowers are typically less than a half-inch long, buried in leaf litter and difficult to find. They are usually beige to dark brown, but can be slightly green or purple. The floral parts of Hexastylis (Greek, meaning “six styles”) are arranged in multiples of sixes. Plants receiving sunlight in early spring will have the most flowers.

According to research over the last 20 years, Hexastylis naniflora is located in only a few counties in the upper Piedmont of North Carolina and South Carolina. Timber harvesting, urbanization, conversion from woodlands to pasture, reservoir construction, pond construction, and insecticide use are threatening the remaining populations.

Remember: the uses of herbicides or pesticides are prohibited in the buffer and that no clearing can be done in the buffer zone around the lake, which is the property of Spartanburg Water. Thank you for being our partner in protecting our precious natural resources.
A Growing Problem:
OVER-FERTILIZATION YIELDS CHALLENGES FOR LONG-TERM HEALTH OF DRINKING WATER RESERVOIRS

Although fertilizers can make an impact on your lawn or garden, they can also wreak havoc on our natural environment—and that means our drinking water.

Over-fertilization is a common problem, and what you use on your lawn and garden can leach into ground water or contaminate our drinking water reservoirs and rivers. Test your soil before applying fertilizers and avoid using fertilizers near surface waters. Select the proper season to apply fertilizers: incorrect timing may encourage weeds or stress grasses. Do not apply pesticides or fertilizers before or during rain due to the strong likelihood of runoff. Calibrate your applicator before applying pesticides or fertilizers. As equipment ages, annual adjustments may be needed.

Fertilizers can be classified as organic or inorganic. Inorganic fertilizers present nutrients as simple charged atoms or molecules. These dissolve readily in water and are immediately available to plants, while organic fertilizers are more complex and require more time to be taken in by plants. Therefore, they are best-suited for use on the land around our lakes, as they minimize the potential for water contamination. Even so, both types of fertilizer can result in environmental degradation when too much is applied.

There are two basic ways to test one's soil: purchasing a do-it-yourself kit, or employing a soil lab to conduct a complete soil test. With a do-it-yourself kit, you can perform a basic pH test to measure the soil’s acidity, alkalinity and the major nutrient contents. However, this kind of approach only gives the most basic look at the contents of your soil. For a thorough, accurate read of your soil’s contents, you are best-suited to get a professional analysis. In addition to the pH level, a soil lab’s test will tell you your soil’s nutrient content so that you can determine what kind of fertilizer—and how much—you need to apply. A lab test can also identify local problems and recommendations for the appropriate types and amounts of fertilizers to apply in order to address these issues.

When collecting soils for a professional analysis, it is best to collect a representative sample of your soil, so get separate sections from areas with different textures, colors and plant growth. Soils used for establishing grass or turf should be sampled to a depth of six inches; turf grass, a depth of three inches; and trees and shrubs, to 12 inches.

Once you have the results of your soil test, it is time to apply them to your lawn care. Fertilizer recommendations are based on the amount of nutrient to apply per given area, with lawn and turf recommendations typically given in pounds per 1000 sq. feet. A “complete” fertilizer is one that contains all three primary nutrients (nitrogen, phosphorus, and potassium). These are often convenient to use, but are hard to find in a ratio that matches the exact amount required by a soil test. In the instance you have to choose a nutrient of focus, always try to match the nitrogen load required. No more than 1 pound per 1,000 square feet should ever be applied at any time—greater rates can burn the grass and result in leaching through the soil and out of the plant zone, resulting in excessive nutrient input into our lakes. Contrary to popular belief, late summer and early fall—not springtime—are the best times of the year to fertilize lawns. One other thing to consider with fertilizer application is the spreader itself—if your spreader is not properly calibrated, you can unintentionally over-fertilize your lawn.

Safe, high-quality drinking water is only one of the goals we must address as stewards of our natural resources—we must also consider all of the factors affecting our surrounding environments. Responsible application of fertilizers—from soil testing to spreader calibration to the actual application itself—plays an enormous role in the maintenance of a happy, healthy drinking water and recreational community. As we move into the heat of summer and temperatures rise, be aware of your fertilization and irrigation practices, as well as your restrictions.

No fertilizer application is allowed below the 827’ MSL (Mean Sea Level) contour at Lake Bowen, or below the 720’ MSL contour at Lake Blalock. Never fertilize right before a rain or a heavy watering, and always be mindful of the total amount and nutrient load of the fertilizer you are applying. Armed with the proper knowledge, you can not only have a happy, healthy lawn, but can be a part of a community working toward maintaining a happy, healthy watershed!