



GREAT WATER HEALTHY LAKES

CHOOSE TAP | SPARTANBURG WATER

It's easy to take nature for granted.

In fact, if we counted the number of times each day that we actually came into contact with our natural environment, perspectives might change for the better—especially among those who disrupt the wonder of our waterways and beautiful outdoor spaces with trash and other things that are “un-natural.” None of this belongs in Mother Nature’s backyard.

Or yours.

At Spartanburg Water, we know that you engage with nature because you either live on or near Lake Bowen or Lake Blalock, or you consider them your second home: a place to relax and enjoy all that our watershed has to offer.

This latest edition of our newsletter is meant to provide you with some additional perspective from our very own watershed team and drinking water treatment experts. As we care for these lakes, we’re ensuring the health, safety and quality of our community’s drinking water.

Swirls & Bubbles:

OXYGENATION TECHNOLOGY BREATHES NEW LIFE INTO DRINKING WATER

More than two years ago, you may remember an algae bloom in our lakes. These algae created a couple of safe and completely natural—but unpleasant—byproducts: MIB, or Methyl-Isoborneol, as well as Geosmin. In fact, like many other utilities across the country, we experienced record levels of both, and the water—to many of our customers throughout Spartanburg County—quite frankly, tasted and smelled funny.

But, for us, that was no laughing matter.

Although algae are a natural part of the ecosystem of the lake, it is important that nutrients (decaying plant matter, stormwater runoff, pet waste and fertilizers) be reduced or prevented from entering the water. But sometimes Mother Nature needs a helping hand in restoring vitality and life to an aquatic ecosystem. This can be accomplished in a variety of ways, and Spartanburg Water has made significant

investments to protect our watershed that supplies our drinking water.

These investments—to the tune of more than \$22 million—will yield results that support the health of our lakes and the balance of our ecosystem for years to come. But our success depends on a renewed commitment to protect our precious natural resources and limit pollution into our lakes. Remember, small acts equal great impacts.

One example of our proactive strategy to help Mother Nature is called Oxygenation—an innovative approach to breathe life back into Lake Bowen and Municipal Reservoir No. 1 (our original reservoir that opened in 1926).

Here’s how it works: A new piping system increases the oxygen level in the water, one of our first steps in the continuing strategy to combat algae that create taste-and-odor causing compounds, like Methyl-Isoborneol (MIB), and Geosmin. None of this is visible; however, you may have noticed the “swirls and bubbles” on Lake Bowen this past

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Pick Up Sticks (and leaves):

CONSIDER COMPOSTING OR MULCHING BUT NEVER THROW YARD DEBRIS INTO THE LAKE



It's a fact of life when you live in an outdoor environment: Leaves, sticks and grass clippings can present a challenge. And this is certainly true in properties adjacent to our drinking water reservoirs. Many of our neighbors on Lake Bowen and Lake Blalock have tried different strategies for dealing with leaves, trimmings and fallen branches. Remember the days when the best practice for dealing with yard waste was bagging it up and having it hauled to the landfill or some other non-descript location?

Others consider throwing this in our reservoirs. Why not? Leaves, sticks and grass are natural, right?

Even seemingly harmless leaves and sticks can cause some pretty serious water quality concerns, if you ask our team. The results might surprise you.

Did you know that decomposing leaves, twigs and yard debris can not only contribute to algal blooms and water quality concerns related to taste & odor

but they can—and do—deplete the oxygen our drinking water supply reservoirs which can potentially lead to issues with aquatic habitat, including the fish that live in the lakes. Never throw or blow yard waste into our lakes. There are better options that help protect both landfill space and our precious drinking water supply:

- **If you bag grass clippings**, consider using them as mulch in order to retain soil moisture and keep weeds down. Leaves can also be excellent mulch. Use them to protect plantings over the winter. Re-use leaves, wood chips, and grass clippings to retain soil moisture, reduce weed growth, and reduce the potential for soil erosion.
- **Consider composting**. An abundance of fall leaves and twigs may prompt many people to consider establishing a composting strategy to deal with yard debris. A small composting enclosure can accept a surprising amount of yard debris for recycling throughout the growing season.

- **Send leave and sticks to bed**. The overall benefits of planting beds allow areas to recycle their own leaves and twigs but may also allow additional yard debris from other areas as well. This also reduces the amount of lawn which will, in turn, reduce the amount of yard clippings to deal with. Alternative ground layer plants (ground cover, flowers, and native plantings) are all options that may be considered to allow hard wastes to disappear quickly if they are used in these planting beds. The decomposing natural yard debris, in turn, benefit plantings because of their organic fertilizer value, enhancement of soil moisture and ability to keep weeds at bay.
- **Direct downspouts into planting beds, rain barrels or other vegetated areas** – This will help reduce run-off from downspouts which are known to contribute to pollutants to lakes and streams. Re-use the water on your yard rather than letting it run off.

Also, when you take down your tree this holiday season, please don't throw it in the lake. While many believe that this is healthy for the lake and provides additional fish habitat, the disposal of Christmas trees into the lakes is another opportunity to feed the lake with more nutrients. These nutrients can result in algal growth that can make your drinking water taste or smell funny. For more information on proper tree disposal, please visit your local county or city recycling center.

The disposal of yard debris through burning or other methods within the Spartanburg Water owned buffer is prohibited and may result in pollution of the water supply or additional damage to the buffer.

Meagan Roy and James West:

MEET OUR NEWEST WATERSHED SPECIALISTS

Spartanburg Water is pleased to welcome two new Watershed Management Specialists to our team. Meagan Roy and James West recently joined us and have a shared enthusiasm for protecting our precious drinking water supply.

Meagan obtained both a Bachelors Degree from Auburn University in Wildlife Biology and a Masters Degree in Fisheries. She has served as both a graduate teaching assistant and a graduate research assistant along with various other research opportunities abroad in South Africa and Swaziland where she honed many of her conservation

and ecological skills. Meagan grew up in Spartanburg where she attended Byrnes High School and also served the Spartanburg Science Center as a Camp Counselor and General Assistant.

James obtained a Bachelors Degree in Biology from USC Spartanburg and has held a number of environmental and regulatory positions during his 26 year professional career. Through the years, James has held positions with the SC Department of Health and Environmental Control (SCDHEC) as an Environmental Health Manager, the Environmental

Protection Agency (EPA) as an Environmental Scientist, and the City of Spartanburg as a tree specialist during a temporary grant assignment funded by the US Forest Service.

Please be sure to stop by our office and welcome Meagan and James to their new role, and to the community!



Don't Forget A Doggie Bag:

THE LAKE DOESN'T WANT YOUR LEFTOVERS

Pet waste, especially from our canine friends, is easy to leave behind on a beautiful walk around the lake, or even in our own yards. Did you know that left on streets, curbs and even on yards pet waste can be carried by stormwater to our creeks, lakes and drinking water supply? Do your part and pick up after your pets. Scoop it, bag it and trash it, even in your own yard. Take a doggie bag with you.

Tip: Save those leftover plastic bags from the grocery store, and tie one in a knot on your pooch's leash. Or you can even buy "designer" puppy poop bags in a wide variety of colors and styles. But whatever you use, just make sure you take it with you

and properly dispose of it in the trash or in a compost pile. That's a much better way to make use of your friend's leftovers. Our watershed team and your community—not to mention Mother Nature—will thank you.



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year. That's the oxygenation system doing its job to create a healthier lake. Those bubbles contain pure oxygen, as well as treatment compounds that support greater fish habitat and, most important, support the reduction of these problematic algae species.

Oxygenation works to restore balance to the ecosystem by reducing phosphorus levels and by reducing the oxygen-depleted areas of the reservoir's deep pools near the dam where algal growth can occur. The oxygenation system is designed to deliver a constant feed of oxygen as well as iron and aluminum-based water treatment products through strategically placed piping systems along the bottom of the lake.

Algae blooms typically grow as the result of prolonged hot, dry weather and high levels of nutrients, including phosphorus and nitrogen present in the watershed runoff during rain events. We know that the central drivers of algal growth are these nutrient loadings and the absence of oxygen. The oxygenation system is an additional tool in the preventative strategies needed to cut MIB off at its actual source—the algae that create it.

When you see the "swirls and bubbles," you know that Mother Nature is getting a helping hand, and the lake is taking a deep breath of pure liquid oxygen.

This technology is valuable in our efforts to prevent the growth of problematic algae. But we need your help to keep the watershed clean. There are many ways that we can all work together to prevent runoff into our lakes. From cleaning up after our pets to using less fertilizer on our lawns, we can also support Mother Nature by being a good neighbor.

And that helps us all breathe easier, not to mention helping our water taste the best that it can. For us, and for generations to come.



Did You Know?

IRRIGATION PERMITS

Did you know that overwatering your lawn is an unhealthy practice for the root systems of your turf grasses and may be especially problematic for the water quality of our drinking water supply? Overwatering leads to run-off which in turn may result in pollutants and harmful nutrients being picked up as the runoff travels across the ground. If this run-off reaches our precious drinking water supply it may result in water quality concerns. You should stop watering if you see any run-off or “ponding” in your yard; these are signs that the soil has absorbed all the water it can hold.

Irrigation from Lake Bowen or Lake Blalock is only allowed

by annual permits issued by Spartanburg Water. The fee for an irrigation permit is \$115, with an annual renewal fee of \$40. For new irrigation systems, customers will be required to install an irrigation system electrical disconnect safety switch. An “Electric Indemnity Agreement” must be executed before a new irrigation permit will be issued. Irrigation permits expire on Dec. 31 of each calendar year.

For more information on irrigation permit, please visit our website at spartanburgwater.org or give our Watershed Management Specialists a call at (864) 592-2240 for Lake Bowen or (864) 578-5442 for Lake Blalock.

