

This is the second a series of articles about the Lakeshore Forest Water System for the YCCC Newsletter.

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Like many things around us, we seldom appreciate what seems to be plentiful and easy to obtain. When it comes to drinking water - all we have to do is turn on a faucet 24/7 and voila there's water! But the water we use doesn't just magically appear. Our drinking water is a carefully regulated product that is pumped out of the ground, treated, and piped to your home. LFWS must comply with all state EPD rules, water testing at the state EPD lab in Norcross, periodic inspections, and guidance from the US Environmental Protection Agency in order to provide you with safe, clean water.

Where Our Water Comes From And How It Gets To Your Tap.

Just 1% of all the water in the world is available for human use – the rest is salty or frozen at the poles. And we actually drink very little of our treated water (only about 1%), the rest goes for manufacturing, agricultural, sanitation, & household use. Lakeshore Forest water is used for drinking, sanitation and household use only. We do not supply any manufacturing or agricultural users. Water flowing to your home has only been treated with Sodium Hypochlorite (chlorine) as mandated by the EPD to prevent bacterial contamination. No other chemicals are added to your water.

So where does our drinking water come from? All water comes from either surface sources such as lakes, rivers and reservoirs (like Lake Lanier) or from ground water trapped in underground geological formations called aquifers. Lakeshore Forest Water System has two wells drilled into aquifers that produce all of the water we use. We do not pump any water from Lake Lanier!

The quality of the water and the volume of water in an aquifer depend upon the rock, sand and soil formations where the well withdraws the water. Our Chestatee well site (250 feet deep) is located at the end of Chestatee Lane. This well has been producing good clean drinking water in sufficient volume to supply our water needs for over 45 years.

However, as more people have made permanent residences in our community, our water needs increased. LFWS added another well in 2000, to ensure we would have enough water for future use. Our deeper Hughes well site (750 feet deep, named for one of our past LFWS presidents) is located on top of the hill next to our water storage tank. A producing water well needs to pump over 20 gallons/minute to keep up with our usage, which averages upwards of 20,000 gallons of water a day during the summer. Each of these wells can pump 35GPM when needed.

How does it get to your tap? Normally, Lakeshore Forest water flows through 5 miles of underground pipes from the 14,000-gallon storage tank on top of the hill overlooking the community. When you open a tap, the force of gravity then “pushes” the water down through the distribution grid into your home. When the Chestatee well starts pumping, it pushes water at a slightly higher pressure, providing water directly to the distibution lines to your homes as well as into the storage tank.

Each residence in the subdivision is connected to the distribution grid by a small 3/4” or 1” house service line. Currently there are 111 such connections. Some of these connections are along the Corps of Engineer property line (where the water distribution line is) and some are in front of residences on the street side. Also, LFWS has strategically located shut-off valves that can be used to isolate a small portion of the grid when repairs need to be made. This disrupts the service to only a few residences at a

time if we have to work on the distribution grid.

In 1995, the Environment Protection Division of the State of Georgia (EPD) required every residential connection to have a shut-off valve and a back-check valve to prevent any contaminants from flowing back into the water supply from an individual house. In addition, the EPD recommended a meter and a meter box at each connection. LFWS has retrofitted most of the service connections in the grid to meet this requirement.

Well maybe it is like magic – you open a tap and out flows some of the cleanest, freshest, best tasting drinking water in the world.

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