

The Water Treatment Process...

Your water makes a long journey to get to you. Before it ever reaches your faucet, water travels through an elaborate system that treats, moves, and stores it.



The water journey begins as an 18-mile canal carries water from the Savannah River to BJWSA's water treatment plant to be made clean and healthy for drinking. When water enters the plant, it goes through a step-by-step process.

1 The first step, known as rapid mix, combines chemicals with the water to cause small particles (such as sand, silt, and clay) to clump together, forming floc. As the water leaves the rapid mix, another chemical is added to allow the floc to increase. The water passes through six motorized flocculation chambers that gently mix it, gradually causing the floc to become heavier than the water.



2 The next step is sedimentation. The water flows into two large sedimentation basins where the floc falls to the bottom. At the end of each basin, the water flows upward through tube settlers that cause any remaining floc to settle. The accumulation of floc, or sediment, is collected and pumped to a storage lagoon.



3 Next, the water flows into the filtration system where chloramine is added for disinfection. Here the water passes through filters that catch any floc that was not removed during sedimentation. The filters are made up of coal and sand to remove the smallest particles. After moving through the filter beds, the water is crystal clear.



4 The water then travels to an area for post-treatment. Chloramine is added to kill germs or bacteria; fluoride is added to help protect our teeth from getting cavities, and corrosion inhibitor is added to prevent the inside of water pipes from rusting.

5 After post-treatment, the water travels into large clearwells. The water sits in these clearwells long enough to be properly disinfected by the chlorine and to ensure that harmful microorganisms are not present. Now the water is clean, safe, and ready for the next part of its journey, delivery to you.

