

Student Name: Sloane Stewart

School: Trickum Middle School

Gwinnett County Winner

The Journey of Wastewater

The average metro-Alantan uses around 50 gallons of water a day inside their home, most of which is used for drinking, bathing, washing clothes and flushing the toilet. Well where does this water go?

This process starts as the water “disappears”. Entering sewage pipes, then traveling to treatment plants. The large items are first removed. Then smaller bits and dissolved materials are cleaned through the primary and secondary treatments. Ending, as disinfection kills the bacteria, we can finally release what is now clean water!

How do all these treatments “clean” the water? Well through the pipes, then to the preliminary treatment where the large objects from the pipes are removed by using screens and filters, the tiny grains are settled out in grit chambers. In the settling tank, the heavy objects sink to the bottom, then removed. While grease and oil float making them easy to skim off.

Next harmful microorganisms are removed, using aeration tanks where air is added to help bacteria work faster. Disinfection methods include chlorine treatment, ultraviolet light or ozone. Returning water back into the environment helps maintain water levels, preventing drought. Wild life also depends on clean water as it is the habitat of most organisms, even us humans rely on water. In closing, recycling water helps protect our future.

Wastewater treatment is an important part of our region's water system because it keeps our environment, communities, wildlife and water supplies healthy. Cleaning wastewater before release prevents the spread of pollution. It keeps people and wildlife healthy from the sickness bacteria infested water causes. To wrap up, recycling helps continue the cycle of reusing resources and reducing waste! Thanks to our region and resources! Gwinnett County operates and maintains two of the largest and technologically advanced water treatment plants in Georgia, resulting in the distribution of 25+ billion gallons of clean water each year!

Just because an item fits in a toilet doesn't mean it should! Items that shouldn't be flushed can clog pipes, damage water treatment equipment and pollute waterways. What

can and can't you flush? "The three P's" pee, poo and paper. Only toilet paper and human waste should go down the toilet. However, there are many things you should never flush. This includes medicine, wipes, grease, and other small trash items. Why not? Well, these items, and many others don't break down like toilet paper. Contaminating water, damaged machinery are some disasters. Flushing the wrong item can cause serious problems, leaving you to deal with them.

In conclusion, the water you wash away has such an important process. The water treatment process ensures waste is properly handled. Our region does its best to keep us safe, healthy, and clean, just by cleaning our water. This process, comes the reward of recycling and reusing the clean water for many other purposes. It's always smart to think before you flush. You make an impact!