

Waste water Treatment Plant Vocabulary

Aeration – Adding air. The wastewater treatment plant has large air blowers that pump air through pipes into the bottom of the aeration tanks. The microorganisms need oxygen to survive.

Aerobic microorganisms – Microorganisms that need oxygen to survive.

Biological treatment – Wastewater treatment uses biology instead of chemicals to treat the water. Wastewater treatment is similar to what happens naturally in rivers, streams, and creeks. The wastewater treatment plants speed up the natural process.

Microorganisms-to-Food Ratio – For wastewater treatment to work properly, there has to be a balance between the amount of microorganisms and the amount of incoming food (wastewater). This is like have a party – you want to have enough food for all your guests.

Pathogens – Pathogens are harmful organisms that can make people and animals sick.

Return of microorganisms – The return process keeps the microorganism-to-food ratio balanced. Microorganisms settle to the bottom of the final tank. Some of these microorganisms are piped back (returned) to the aeration tanks to continue cleaning the water.

Ultra violet light disinfection – Instead of using dangerous chlorine gas, wastewater plants can use ultra violet light to disinfect the water. The ultra violet (UV) light disables microorganisms so they cannot cause harm. The UV light also damages the DNA in microorganisms so they cannot reproduce.

Wasting of microorganisms – The wasting process keeps the the microorganism-to-food ratio balanced. Microorganisms settle to the bottom of the final tank. Some of these microorganisms are piped out of the plant (wasting).

Wastewater – Wastewater is also called sewage. It is the dirty water from homes and businesses. In your house, it is the water that goes down the kitchen and bathroom drains, and down the toilet when you flush. Wastewater can include harmful bacteria and viruses that make people sick.

Wastewater microorganisms – The microorganisms we use to clean wastewater occur naturally. The microorganisms are found in soil and in our own stomachs.

Water reclamation – The wastewater treatment plant is a water reclamation plan. We reclaim water at the wastewater treatment plants. In Nashville, we take water that the community used, clean it, and return it to the Cumberland River