

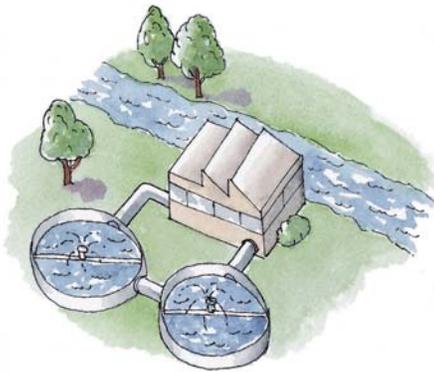
Water Treatment: Making Your Water Clean and Safe to Drink

At the water treatment plants, Waterworks cleans its surface water using the following process:

Screening: Before entering the water treatment plant, water passes through a screen to remove logs, fish, plants and other large debris.

Rapid Mixing: When the water enters the treatment plant, it goes to the rapid mix chamber, sometimes called a flash mixer. There, a chemical called a coagulant is mixed into the water. Aluminum sulfate, or alum, is a chemical that is often used as a coagulant. A coagulant causes charged particles in the water become destabilized. This helps to promote coagulation, the process of transforming a liquid into a semi-solid.

Flocculation: Next, the water travels through a basin where very slow mixing occurs. Here, the small, destabilized particles are attracted to each other. They begin to stick together and form larger, heavier particles called "flocs." This process is called flocculation.



Sedimentation: Once the flocs form, the water travels through another basin where no mixing occurs. The flocs settle to the bottom of the basin where they will later be removed. This process is called sedimentation.

Filtration: The water is then sent through filters to remove any remaining particles.

Often these particles are invisible to the naked eye. Filters are usually made up of materials like sand, anthracite coal and granular activated carbon.

Disinfection: Disinfection is the part of the treatment process in which bacteria and germs are inactivated or killed. Ozone, chlorine and chloramines are three chemicals that we use for disinfection.

Fluoridation: Fluoride is added to the water to prevent tooth decay.

Nothing is wasted in the treatment process. Even the flocs that settle to the bottom of the sedimentation tanks are removed from the tanks and put through a drying process. Once they are dry, Waterworks recycles this material by applying it to our watershed property. Meanwhile, any water left over from the treatment process is returned to the reservoirs.