

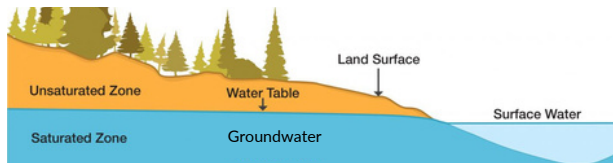
DRINKING WATER FACTSHEET

INTRODUCTION TO DRINKING WATER QUALITY AND YOU

Factsheet Drinking Water Series - #1

Water Source

Most communities in the U.S. get drinking water from surface water and groundwater. Surface water sources include lakes, reservoirs, and rivers. Groundwater is located below the ground and accumulates as runoff flows through soil and rock. [1]



Public Water Systems

Most households and businesses receive water from Public Water Systems, which are defined as systems that provide water for consumption to 15+ connections or serve 25+ people daily for 60+ days out of the year. There are three types of Public Water Systems:

- **Community Water Systems** are city, county, regulated utilities, and regional water systems.
- **Transient Water Systems** are restaurants, State & National parks, and other places without permanent residents
- **Non-community Non-transient Water Systems** are schools and businesses.

Additionally, many households, especially in rural areas, rely on private groundwater wells or other types of very small systems. [2]

Ensuring Safe Drinking Water

Larger water systems typically have water treatment plants with multiple stages of treatment, which ensure that water is safe to drink as it travels to homes and businesses. Smaller systems and groundwater wells may only disinfect water. If water sources become contaminated with chemicals, pesticides, or naturally occurring substances, typical treatment and disinfection systems may not provide water that meets public health standards.

Treatment^[3]



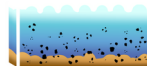
Coagulation

The first step, coagulation, removes solids from water. In this process, water is treated with positively charged chemicals to neutralize the negative charge of solids in the water.



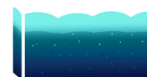
Flocculation

The second step, flocculation, further removes solids from water. In this process, a chemical (a flocculant) is added to encourage solids to stick together.



Sedimentation

In sedimentation, groups of solids that stick together during flocculation (called a floc) settle at the bottom, leaving the cleaner water at the top.



Filtration

In filtration, the fourth and final step in removing solids, the cleaned water from sedimentation passes through filters with different-sized holes and materials to catch whatever solids are left.



Disinfection

After solids are removed, chemical disinfectants are added to the water to kill any remaining parasites, bacteria, or viruses. This helps keep the water safe as it travels from the water treatment plant to your tap.

References [1] - [3] are located here:

