

Water: From Source to Tap

Vocabulary List

Surface Water (Page 4)

- Water that collects on the surface of the ground, such as lakes, rivers, and reservoirs. It is a common source for public water systems.

Ground Water (Page 4)

- Water located beneath the earth's surface in soil pore spaces and rock formations. It is another primary source of drinking water.

Turbidity (Page 5)

- A measure of how clear or cloudy water is. High turbidity can indicate the presence of particles that may harbor harmful microorganisms.

Alkalinity (Page 5)

- The capacity of water to neutralize acids. It helps stabilize pH levels, which is important for effective water treatment and corrosion control.

Microcystin (Page 5)

- A toxin produced by certain types of cyanobacteria (blue-green algae) found in surface water. It can pose health risks if not properly treated.

Coagulation (Page 8)

- The process of adding chemicals (coagulants) to water to destabilize and bind together small particles into larger clumps.

Flocculation (Page 8)

- A gentle mixing process that follows coagulation, helping the particles (called flocs) form larger, more easily removable clusters.

Sedimentation (Page 8)

- The process where heavier flocs settle to the bottom of a tank and are removed from the water before further treatment.

Chloramines (Page 9)

- Disinfectants formed by combining chlorine and ammonia. Used in drinking water treatment, they provide longer-lasting disinfection as water moves through pipes—part of what's known as **secondary disinfection**.

Nitrification (Page 11)

- A microbial process where ammonia is converted into nitrite and then nitrate. It can occur in drinking water systems, particularly when chloramines are used, and may lead to water quality issues.

Biofouling (Page 13)

- The accumulation of biological material, such as bacteria or algae, on surfaces in water systems. It can clog pipes and affect water quality.

Water System Hydraulic Disruption (Page 15)

- A sudden change in water pressure or flow in a distribution system. Causes include leaks, valve or pump failures, and rapid demand shifts, potentially compromising water safety.

Volatile Organic Compounds (VOCs) (Page 16)

- Organic chemicals that can evaporate into the air and dissolve in water. Some VOCs can be harmful to health and must be monitored in water systems.

Backflow (Page 18)

- The unwanted reverse flow of water from a non-potable source into the clean water supply. It can occur due to changes in pressure and may introduce contaminants.

Water Management Program (WMP) (Page 19)

- A formal plan that identifies risks and outlines control measures to minimize health impacts from waterborne pathogens and chemical hazards, such as VOCs, within building water systems.