

# 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.