Water Glossary Level 1 & 2

Action Level

The level of lead or copper which, if exceeded in over 10% of the homes tested, triggers treatment or other requirements that a water system must follow.

Acute Health Effect

An immediate (i.e., within hours or days) adverse health effect that may result from exposure to certain drinking water contaminants (e.g., pathogens).

<u>Aquifer</u>

A natural underground layer, often of sand or gravel, that contains water.

Chronic Health Effect

The possible result of exposure over many years to a drinking water contaminant at levels above its Maximum Contaminant Level.

Coliform

A group of related bacteria whose presence in drinking water may indicate contamination by disease-causing microorganisms.

Community Water System

A public water system which supplies drinking water to 25 or more of the same people year-round in their residences.

Compliance

The act of meeting all state and federal drinking water regulations.

Contaminant

Anything found in water (including microorganisms, minerals, chemicals, radionuclides, etc.) which may be harmful to human health.

Cryptosporidium

A microorganism commonly found in lakes and rivers which is highly resistant to disinfection. Cryptosporidium has caused several large outbreaks of gastrointestinal illness, with symptoms that include diarrhea, nausea, and/or stomach cramps. People with severely weakened immune systems are likely

Disinfectant

A chemical (commonly chlorine, chloramine, or ozone) or physical process (e.g., ultraviolet light) that kills microorganisms such as bacteria, viruses, and protozoa.

Disinfectant Byproducts

Chemicals that may form when disinfectants (such as chlorine), react with plant matter and other naturally occurring materials in the water. These byproducts may pose health risks in drinking water.

<u>Distribution System</u>

A network of pipes leading from a treatment plant to customers plumbing systems.

Exemption

State or US EPA permission for a water system not to meet a certain drinking water standard. An exemption allows a system additional time to obtain financial assistance or make improvements in order to come into compliance with the standard.

Finished Water

Water that has been treated and is ready to be delivered to customers. See Source Water.

Giardia lamblia

A microorganism frequently found in rivers and lakes, which, if not treated properly, may cause diarrhea, fatigue, and cramps after ingestion. People with severely weakened immune systems are likely to have more severe and more persistent symptoms than healthy individuals.

Ground Water

The water that systems pump and treat from aquifers (natural reservoirs below the earth's surface).

Inorganic Contaminants

Mineral-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can also get into water through farming, chemical manufacturing, and other human activities. US EPA has set legal limits on 16 inorganic contaminants.

Maximum Contaminant Level (MCL)

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.

Microbes

(microorganisms) Tiny living organisms that can only be seen with the aid of a microscope. Some microbes can cause acute health problems when consumed (see pathogens).

Monitoring

Testing that water systems must perform to detect and measure contaminants. A water system that does not follow US EPA's monitoring methodology or schedule is in violation, and may be subject to legal action.

National Primary Drinking Water Regulations

Legally enforceable standards that apply to public water systems. These standards protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health and which are known or anticipated to occur in public water supplies.

Organic Contaminants

Carbon-based chemicals, such as solvents and pesticides, which can get into water through runoff from cropland or discharge from factories. US EPA has set legal limits on 56 organic contaminants.

Pathogens

Disease-causing organisms, such as some bacteria, viruses, or protozoa.

Primacy

Primary enforcement authority for the drinking water program. Under the Safe Drinking Water Act, states, U.S. territories, and Indian tribes that meet certain requirements, including setting regulations that are at least as stringent as US EPA's, may apply for

Public Notification

An advisory that US EPA or the state requires a water system to distribute to affected consumers when the system has violated Maximum Contaminant Levels or other regulations. The notice advises consumers what precautions, if any, they should take to

Public Water System (PWS)

Any water system which provides water to at least 15 service connections or 25 people for at least 60 days annually. There are more than 170,000 PWSs providing water from wells, rivers, and other sources to about 250 million Americans.

Radionuclide

An unstable form of a chemical element that radioactively decays, resulting in the emission of nuclear radiation. Prolonged exposure to radionuclides increases the risk of cancer. All of the emission of nuclear radiation. Prolonged exposure to radionuclides increases the risk

Raw Water

Water in its natural state, prior to any treatment for drinking. See finished water

Sanitary Survey

An on-site review of the water sources, facilities, equipment, operation, and maintenance of a public water system for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water.

Secondary Drinking Water Standards

Non-enforceable federal guidelines regarding cosmetic effects (such as tooth or skin discoloration) or aesthetic effects (such as taste, odor, or color) of drinking water.

Sole Source Aquifer

An aquifer that supplies 50 percent or more of the drinking water of an area.

Source Water

Water in its natural state, prior to any treatment for drinking. See finished water.

Surface Water

The water that systems pump and treat from sources open to the atmosphere, such as rivers, lakes, and reservoirs.

Treatment Technique

A required process intended to reduce the level of a contaminant in drinking water.

<u>Turbidity</u>

The cloudy appearance of water caused by the presence of tiny particles. High levels of turbidity may interfere with proper water treatment and monitoring.

Violation

A failure to meet any state or federal drinking water regulation.

Vulnerability Assessment

An evaluation of drinking water source quality and its vulnerability to contamination by pathogens and toxic chemicals.

Water Sample

The water that is analyzed for the presence of US EPA-regulated drinking water contaminants. Depending on the regulation, US EPA requires water systems and states to take samples from source water, from water leaving the treatment facility

<u>Watershed</u>

The land area from which water drains into a stream, river, or reservoir

Wellhead Protection Area

The area surrounding a drinking water well or well field which is protected to prevent contamination of the well(s).