

Glossary of Terms

These definitions are not intended to be complete or to have legal force, but rather to help consumers quickly understand drinking water-related terms in the context of their daily lives.

Action Level: The concentration of lead or copper in water specified in subsection (j)(6)(B) of Section 19-13-B102, which determines, in some cases, the treatment requirements contained in subsection (j)(6) that a water system is required to complete.

Active Source of Supply: All springs, streams, watercourses, brooks, rivers, lakes, ponds, wells, or underground waters from which water is taken on a regular or periodic basis for water supply purposes. A number of wells drawing water from a single aquifer or more than one surface water body or a combination of surface water and groundwater sources connected to a common distribution system may, at the discretion of the department, be considered a single source of supply.

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).

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

Best Available Technology: The water treatment(s) that US EPA certifies to be that most effective for removing a contaminant.

Certified Distribution System Operator: An operator who has met the education, experience and examination requirements specified in Section 25-32-11 of the regulations of Connecticut State agencies.

Certified Treatment Plant Operator: An operator who has met the education, experience and examination requirements of Section 25-32-9 of the regulations of Connecticut State agencies.

CFR: Code of federal regulations.

Chronic Health Effect: The possible result of exposure over any years to drinking water contaminants at levels above its Maximum Contaminant Level.

Coagulation: A process using coagulant chemicals and mixing by which suspended materials are destabilized and agglomerated into flocs.

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

Community Water System: A public water system that serves at least twenty-five (25) residents throughout the year.

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

Contaminant: Any physical, chemical, biological, or radiological substance or matter in water as in section 1401 Title XIV of the Federal Public Health Service Act. Anything found in water (including microorganisms, minerals, chemicals, radionuclides, etc.) which may be harmful to human health.

Consecutive Public Water System: A public water system that purchases all of its water from another public water system and does not operate or control any other sources of supply.

Consumer: One that meets the requirements of section 25-32a of the Connecticut General Statutes.

Cryptosporidium: A microorganism commonly found in lakes and rivers, which is highly resistant to disinfection. It 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 to have more severe and more persistent symptoms than healthy individuals.

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

Disinfection: A process that inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

Disinfection 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 a health risk in drinking water.

Distribution System: A network of pipes leading from a treatment plant to customers' plumbing systems.

EPA: The Environmental Protection Agency.

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. The state must set a schedule under which the water system will comply with the standard for which it received an exemption.

Filtration: A process for removing particulate matter from water by passage through porous media.

First Draw Sample: A one-liter sample of tap water, collected in accordance with subsection (e)(8)(B)(ii) of this section, that has been standing in plumbing pipes at least six (6) hours and is collected without flushing the tap.

Flocculation: A process to enhance collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.

Finished Water: Water that has been treated and is ready to be delivered to customers.

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

Groundwater Under The Direct Influence Of Surface Water: Any water beneath the surface of the ground with either significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as Giardia lamblia, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to surface water conditions.

Health Advisory: A US EPA document that provides guidance and information on contaminants that can effect human health and that may occur in drinking water.

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.

Legionella: A genus of bacteria, some species of which have caused a type of pneumonia called legionnaires disease.

Maximum Contaminant Level (MCL): The maximum permissible level of a contaminant in water that is delivered to any consumer of a public water system. MCLs are set as close to MCLG as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is a known or expected risk to health. MCLGs allow for a margin of safety. MCLGs are non-enforceable health goals.

Method Detection Limit: The minimum concentration of a substance that can be measured and reported with ninety nine percent (99%) confidence that the true value is greater than zero (0).

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: A test that water systems must perform to detect and measure contaminants. A water system that does not allow 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 have their own water systems.

Non-Community Water System: A public water system that serves at least twenty-five (25) persons at least sixty (60) days out of the year and is not a community or a seasonal water system.

Non-Transient Non-Community Water System: A public water system that is not a community system and that regularly serves at least twenty-five (25) of the same persons over six (6) months per year.

Notification Level: The level of a contaminant that if exceeded shall require public notification by a public water system to its consumers.

Other Unregulated Contaminants: Contaminants that meet or exceed the department's action level or contaminant level for which the maximum contaminant goal has been proposed for drinking water by EPA.

Organic Contaminants: Carbon-based chemicals, such as solvents and pesticides, which can get into water through runoff from cropland or discharge from factories.

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

Physical Parameters: Color, turbidity, pH and odor.

Point Of Entry: A location on an active source of supply that is after any treatment and before entrance to the distribution system.

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

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 protect their health.

Public Water System: Any water company supplying water to fifteen (15) or more consumers or twenty-five (25) or more persons, based on the "Design Population" as defined in Section 16-262m-8(a)(3) of the regulations of Connecticut State Agencies, jointly administered by the DPH and the Department of Public Utility Control, daily at least sixty days (60) of the year. There are over 2,500 PWSs in Connecticut.

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.

Raw Water: Water in its natural state, prior to any treatment for drinking.

Repeat Sample: A sample that is collected as a result of a total coliform-positive routine sample.

Routine Sample: A sample that is collected at a location and frequency as specified in the approved sample siting plan.

Sample: The water that is analyzed for the presence of regulated drinking water contaminants. Depending on the regulation, samples are taken from source water, from water leaving the treatment facility for from the taps of selected consumers.

Sanitarian: A person who is trained in environmental health and who is qualified to carry out educational and investigational duties in the fields of environmental health such as investigation of air, water, sewage, foodstuffs, housing and refuse by observing, sampling, testing and reporting; and who is licensed pursuant to Section 20-361 of the Connecticut General Statutes.

Sanitary Survey: An on-site inspection of the water sources, facilities, equipment, operation and maintenance of public water system for the purpose of evaluation the adequacy of the facilities for producing and distribution 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.

Sedimentation: A process for removal of solids before filtration by gravity or separation.

Sole Source Aquifer: An aquifer that supplies 50 percent or more of the drinking water of an area.

Source Water: Raw water before any kind or type of treatment at the source of supply.

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

Transient, Non-Community Water System: A Transient, Non-Community systems are non-residential water systems that serve 25 or more people, not necessarily the same people, on a daily basis for at least 60 days per year such as food service establishments, gas stations, highway rest areas, state parks, youth camps, and private campgrounds.

Treatment Technique: A required process intended to reduce the level of contaminant in drinking water.

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

Variance: State or US EPA permission not to meet a certain drinking water standard.

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

Vulnerability Assessment: An evaluation of drinking water source quality and it's vulnerability to contamination by pathogens and toxic chemicals.

Waterborne Disease Outbreak: The significant occurrence of acute infectious illness, associated with the ingestion of water from a public water system as determined by the department.

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

Watershed Survey: A survey identifying activities of sanitary significance within the watershed that may be detrimental to the quality of waterbody sources within the watershed area. This survey shall be based on, but not limited to, items and activities listed in Section 19-13-B32 of the CT Public Health Code.

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