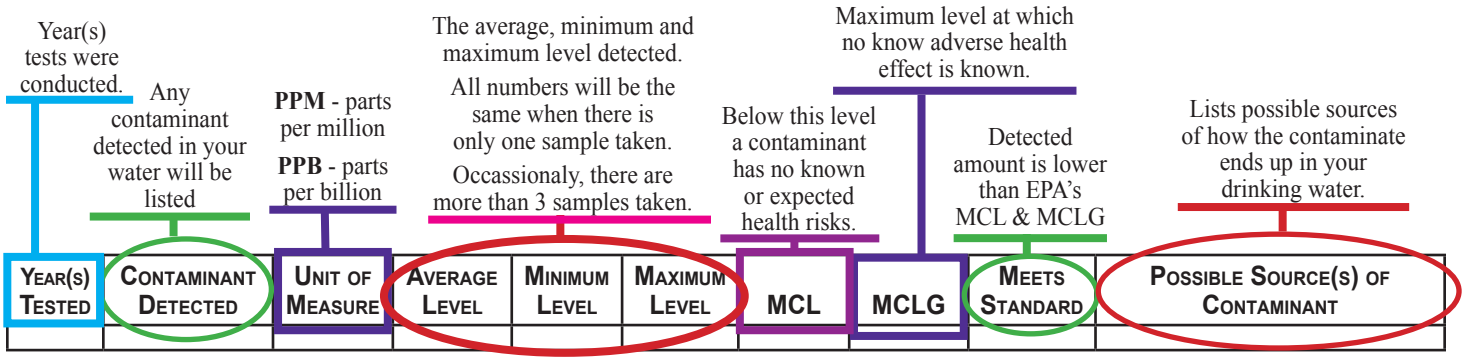
How to Read Your Annual Water Quality Report

Also Known as a Consumer Confidence Report - CCR



Regulations on Drinking Water

In order to ensure tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of issues are not necessarily causes for health concerns.

Maximum Contaminant Level (MCL)

The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. MCLs are set at very stringent levels.

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL)

The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a drinkng water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Year(s) Tested

The CCR covers test results from the past five years. Many contaminants are not tested annually because their concentrations are not expected to vary.

PicoCuries per liter (pCi/L)

A measure of radioactivity.

Action Level - See Copper and Lead Test

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Turbidity - for Surface Water users

A measure of how cloudy or clear the water is. High turbidity means very cloudy and low turbidity means clear. Water with high turbidity is very dirty and murky (you cannot see through it).

Nephelometric Turbidity Units (NTU)

A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.

Units of Measurement

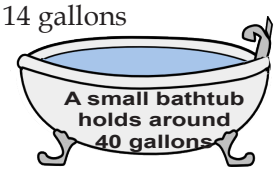
N/A - Goals and/or levels not established at this time.

PPM - Parts per million or milligrams per liter (mg/L)

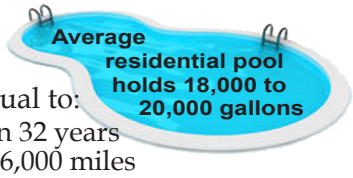
PPB - Parts per billion or micrograms per liter (µg/L)

PPT - Parts per trillion or nanograms per liter (ng/L)

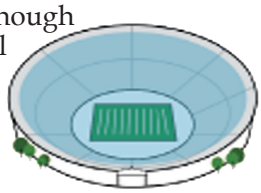
PPM - is equal to:
1 second in 12 days
1 inch in 16 miles
1 drop in 14 gallons



PPB - is equal to:
1 second in 32 years
1 inch in 16,000 miles
1 drop in 14,000 gallons



PPT - is equal to:
1 second in 32,000 years
1 inch in 16 million miles
10 drops in enough water to fill a stadium



Contaminants

Contaminant

The technical term for anything else in water except pure water is "contaminant." Technically, pure, fresh orange juice can be considered water which has been "contaminated" by the oil, orange pulp and flavorings.

Obviously, some contaminants aren't good and can actually be hazarous to your health at specific levels. Those are the ones that are tested and measured and reported in the CCR.

Regulated Contaminants

The EPA sets regulatory limits for the amounts of certain contaminants in water provided by public water systems. These contaminant standards are required by the Safe Drinking Water Act (SDWA). The EPA works with states, tribes, and many other partners to implement these SDWA provisions.

Unregulated Contaminant

The EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA).

TYPES OF CONTAMINANTS

Microbial - Biological Contaminants

Bacteria and parasitic microorganisms are what most people think of when they talk about water contamination. Viruses and bacteria may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

The use of a disinfectant (chlorine or chloramines) is used in the municipal treatment process to prevent dangerous outbreaks.

Inorganic Contaminants

This group of contaminants includes the minerals and toxic metals. Some of these contaminants, like calcium and magnesium are naturally occurring. Others like copper and lead usually get into the water from pipes. Some of these contaminants such as lead and arsenic can be quite dangerous.

Pesticides and Herbicides

These may come from a variety of sources such as agriculture, urban storm water runoff and residential users.

Radioactive Contaminants

These contaminants can be naturally-occurring or be the result of oil and gas production and mining activities. This group is really a subset of the Inorganics and can include uranium, plutonium and radium.

Organic Chemical Contaminants

The term organic in this sense means that they are carbon-based, which usually means that they are derived from petroleum. Since they are carbon-based though, they can easily bind with human tissue which can make them extremely toxic in very tiny quantities.

Synthetic and volatile organic chemicals can come from gas stations, urban storm water runoff and septic systems.

Sources of Contaminants

Erosion of natural deposits - This language is required in the "possible source of contaminant column" for contaminants that are naturally-occurring. Erosion of natural deposits actually means the substance is naturally-present in drinking water and was not added.

Bottled Water Regulations

U. S. Food and Drug Administration FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Disinfectant Byproducts (DBPs)

Disinfection byproducts are chemical, organic and inorganic substances that can form during a reaction of a disinfectant (chlorine or chloramines) with naturally present organic matter in the water. Byproducts formed can include: Trihalomethanes (THM), Haloacetic acids (HAA), Chlorite, and Bromate.

Water systems must monitor the water distribution system as required by Stage 2 of the federal Disinfectant Byproduct Rule.

Sources of Drinking Water

The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and can be polluted by animals or human activity including industrial waste.

The many 'Natural' Flavors of Water

Secondary Constituents

The mineral and organic matter contents (such as calcium, sodium, or iron) of natural waters vary geographically because of regional geology, seasonal factors, and temperature variations. As a result, water really does come in a lot of "natural" flavors. The taste, color, and odor constituents are called secondary constituents and are not regulated by EPA.

Surface water usually has higher dissolved oxygen, microbial, organic matter and particulate content; and temperature variations from near-freezing to warm. Naturally occurring algae in surface water can produce compounds that add earthy, musty, fishy, grassy, fruity or other odors to the water.

Groundwater tends to be at a constant and cool temperature, with higher mineral content. Minerals can add a salty, sweet, bitter, or sour flavor to water.

Water with little mineral content are frequently described as "slick" or "astringent."