

City of Columbiana 2014 Water Quality Report

The **City of Columbiana** has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

Source Water Information. The City of Columbiana receives its drinking water from 9 wells in the aquifer assigned to the Allegheny Formation, Pennsylvania Age. The City of Columbiana has a current, unconditioned license to operate as public water system ID OH1500312.

Source water assessment and its availability. Ohio EPA recently completed a study of the City of Columbiana’s source of drinking water, to identify potential contaminant sources and provide guidance in protecting the drinking water source. According to this study, the aquifer (water-rich zone) that provides water to the City of Columbiana has a high susceptibility to contamination. This determination is based on the following:

- *lack of a protective layer of clay/shale overlying the aquifer in at least one of the wells
- *shallow depth (at the ground surface) of the aquifer
- *presence of significant potential contaminant source in the protection area

This susceptibility means that under current existing conditions, the likelihood of the aquifer becoming contaminated is relatively high. This likelihood can be minimized by implementing appropriate protective measures. More information about the source water assessment or what consumers do to help protect the aquifer is available by calling 330-482-2173.

What are sources of contamination to drinking water?

The sources of drinking water both tap water and bottled water includes 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban Storm water runoff, and septic systems; (E) radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline (1-800-426-4791).

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

About your drinking water.

The EPA requires regular sampling to ensure drinking water safety. The **City of Columbiana** conducted sampling for Bacteria, Total Trihalomethanes (THM’s), Fluoride, Nitrates, Haloacetic acids (HAA5), and Chlorine during 2014. Samples were collected for a total of 5 different contaminants, all were below the MCL set by the USEPA. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Additional information on lead:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. **The City of Columbiana** is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>

Listed below is information on those contaminants that were found in the **City of Columbiana** drinking water.

Contaminants	MCGL	MCL,	Your			Sample	Violation	Typical Source	
	or	TT, or	Water	Low	Range	Year			
	MRDLG	MRDL			High				
Disinfectants & Disinfection By-Products									
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)									
Chlorine (asCL2) (ppm)	4	4	1.52	1.25		1.72	2014	No	Water additive used to control microbes
Volatile Organic Chemicals									
Chloroform	N/A	N/A	.520	NA		NA	2014	No	By-product of drinking water disinfection
TTHM's (Total)									
Trihalomethanes (ppb)	NA	80	20.35	NA		NA	2014	No	By-product of drinking water disinfection
	NA	80	21.75	NA		NA	2014	No	By-product of drinking water disinfection

Haloacetic Acids (HAA5)(ppb)	NA	60	4.06	NA	NA	2014	No	By-product of drinking water disinfection
	NA	60	3.42	NA	NA	2014	No	By-product of drinking water disinfection
Inorganic Contaminants								
Fluoride (ppm)	4	4	1.04	0.85	1.16	2014	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer, aluminum factories.
Asbestos	7	7	0.16	NA	NA	2011	No	Decay of asbestos cement water mains, Erosion of natural deposits.

Inorganic Contaminants	MCGL	AL	Your Water	Samples Exceeding	AL	Sample Date	Violation	Typical Source
Barium	2	2	.0213	0		2014	No	Discharge from drilling wastes; Discharge from metal refineries, Erosion of natural deposits.
Copper-Action level at consumer tap	1.3	1.3	0	0		2014	No	Corrosion of household plumbing system; Erosion of natural deposits.
Lead-Action level at consumer tap	0	15	0	0		2014	No	Corrosion of household plumbing system; Erosion of natural deposits.

Undetected Contaminants: The following were monitored for, but not detected, in your water.

Contaminants	MCGL or MRDLG	MCL, TT, or MRDL	Your Water	Sample Date	Violation	Typical Source
Nitrate(measured as nitrogen) (ppm)	10	10	0	2014	No	Runoff from fertilizer use; leaching from septic Tanks, sewage; Erosion of natural deposits.

Radionucleides	MCL	Your Water	Sample Date	Violation	Typical Source	
Combined Radium	N/A	5 pCi/L	1.9 pCi/L	2014	No	Erosion of natural deposits

How do I participate in decisions concerning my drinking water?

The public is welcome to attend regularly scheduled city council meetings. Meeting times and dates can be obtained from the City Manager's office.

For more information on your drinking water contact Lance Willard. 330-482-2173 Website: www.columbianaohio.gov

Treatment Information:

Columbiana water supply utilizes conventional lime softening, aeration, coagulation, sedimentation, stabilization, chlorination and fluoridation to produce the quality water Columbiana has enjoyed for over 80 years. We are still treating water with the same process units constructed in the early 1930's.

***Backflow and Cross Connection Program:** An active Backflow and Cross Connection Program further protects your water. This program serves to help protect the consumer against the entrance of any potential contaminant from entering the distribution system. Backflow Prevention Devices are required throughout the distribution system. The devices are tested annually by State Certified Backflow Testers.

***Bacterial Protection:** As a disinfectant, the OEPA requires that a minimum chlorine residual of .2mg/l free chlorine be maintained in all parts of the distribution system. To insure our compliance with this requirement, we collect daily samples from over 100 sampling points around the city. At no time in 2014 was there any indication of water quality problems affecting the drinking water. Also we conducted 106 bacterial tests on the water from the list of sampling points. All tests indicated the water was safe.

***Boil Advisory:** If a boil advisory is issued, this does not mean the water is unsafe to drink. It means, according to EPA guidelines, the designated area in the distribution system experienced conditions that may produce a situation for contamination. Because of this, it is advisable to boil the water prior to drinking it. During each advisory we collect samples for lab analysis to check for contamination. Once the results are received, if there is no contamination, the boil advisory is lifted.

***Storage:** Columbiana presently has two storage tanks. Capacities are 1 million and 500,000 gallons.

***Distribution Data:** There are 1013 valves, 413 fire hydrants, 3053 service connections, and 199 backflow devices.

***Results of voluntary monitoring:** The following is a list of some of the water quality testing that is conducted on the finished product at the Water Treatment Plant Laboratory: Free chlorine @ 1.52mg/l, Fluoride @ 1.00mg/l, Calcium Carbonate Stability @ +1.1mg/l (indicates a very slight depositing rate for corrosion protection), Total Hardness @114mg/l, Total Alkalinity @61mg/l, pH @10.2.

Definitions of some terms contained within this report.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (µg/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking 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 contaminants.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Not Applicable: NA

Not Detected: ND

