

City of Zanesville
Drinking Water Consumer Confidence Report
For 2017

The Zanesville Water Division has prepared the following report to provide information to you, on the quality of our drinking water. This report was required as part of the Safe Drinking Water Act Reauthorization of 1996 and is required to be delivered to the consumers by June 30, 2017. Included within this report are general health information, water quality test results and ways to participate in decisions concerning your drinking water system.

Source

The Zanesville Water Supply is extracted from wells drilled in the eastern flood plain of the Muskingum River along Lewis Drive (S.R. 666). This source was first developed in 1917, and has been our only source ever since. This location is better known in present times as Riverside Park, but the public should not lose sight of its valuable underground resource. The Water Treatment Plant is located adjacent to the well field. The original building was constructed in 1917. About 1949, the steam pumps were replaced with electric units. The last major upgrade was the construction of the new Water Treatment Plant on Buckeye Drive that went on line on December 20, 2011.

Improvements

In 2017, the Zanesville Water Maintenance Division completed quite an impressive workload. In addition to 1 valves repaired, 6 valves replaced, 95 service renewals, 16 new tap, 13 hydrants replaced, 17 hydrants repaired, 95 service repairs, and 5 meter pits replaced/installed.

Auxiliary Connections

The Zanesville Water System also has a back-up connection with the Muskingum County Water Department near Richards Road. On average, this connection is used approximately two days each year to service Conn's Potato Chips. This connection is used as a back-up to our facility and is directly billed by Muskingum County Water Department. This report does not contain information on the water quality received from the County. Consumers may contact Debbie Ralph at (740) 453-0678 to obtain a copy of their consumer confidence report.

What Causes Contamination

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 case, 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, 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, EPA 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 healthcare 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).

Sampling Requirements and Results

The EPA requires regular sampling to ensure drinking water safety. In 2017, the Zanesville Water Division conducted 404 regular samples for bacteria at various points throughout the distribution system.

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. Some of our data, though accurate, are more than one year old. Tested in 2015 were 55 Volatile Organics and 18 Synthetic Organics. Two radiological (Gross Alpha) samples were taken in 2014.

The latest round of lead and copper samples were completed in 2017. Both lead and copper passed the criteria for the Action Level, the point at which additional treatment is required.

Trihalomethanes are sampled quarterly and averaged. The results are in the table. Organics are tested quarterly and averaged the same as trihalomethanes. The same four trihalomethanes were found for both groups. The Maximum Contaminant Level for Total Trihalomethanes is based on the average of the four annual quarters. The MCL is 80 parts per billion (ug/l).

Lead Educational Information

If present, elevated levels of lead can cause serious health problems, especially for pregnant and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Zanesville 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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

License to Operate

We have a current, unconditional license to operate our water system.

WATER QUALITY MONITORING

The City has been given a sampling schedule for analyses that must be conducted through 2017. Listed below is a partial summary of water quality monitoring information we currently have on file for your water system. Parameters are only listed if they were measured at detectable levels.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2017	16.2	0-16.2	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TTHm)*	2017	43.9	24.6-43.4	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Fluoride	2017	1.18	0.90-1.18	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Barium	7/22/17	53.9	NA	2	2.0	ppb	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate [measured as Nitrogen]	6/9/17	0.66	NA	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead and Copper	Collection Date	90 th Percentile	Results Above the AL	MCLG	Action Level (AL)	Units	Violation	Likely Source of Contamination
Copper	2017	0.24	NA	1.3	1.3	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
0 out of 30 samples for Copper were above the action level of 1.3 ppm								
Lead	2017	0	NA	0	15	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.
0 out of 30 samples for Lead were above the action level of 15 ppb								

Disinfectant Residuals

Total Chlorine Residual (ppm)	2017	1.9	0.9-1.9	MRDLG=4	MRDL=4	ppm	N	Water additive to control microbes
-------------------------------	------	-----	---------	---------	--------	-----	---	------------------------------------

City Council Meetings

City Council does meet on the second and fourth Mondays of each month. The Public Service Director is available to receive correspondence at 401 Market Street, Zanesville, Ohio, 43701 or telephone calls at (740) 617-4910.

For more information on your drinking water, contact: Paul Mills, Water Superintendent, at (740) 455-0631.

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 or one ounce in 7,350 gallons of water corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (mc/L) are units of measure for concentration of a contaminant. A part per billion or one ounce in 7,350,000 gallons of water corresponds to one second in 31.7 years.

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

The "<" symbol means less than.

Ohio EPA Recently completed a study of the City of Zanesville's source of drinking water, to identify potential contaminant sources and provide guidance on protecting the drinking water source. According to this study, the aquifer (water-rich zone) that supplies water to the City of Zanesville has a high susceptibility to contamination. This determination is based on the following:

- The lack of a protective layer of clay/shale/other overlying the aquifer,
- A shallow depth (less than 20 feet below ground surface) of the aquifer,
- The presence of significant potential contaminant sources in the protection area, and
- The past presence of manmade contaminants in treated water.

This susceptibility means that under correctly 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 can do to help protect the aquifer is available by calling 455-0631.