

Water Department terms used in the Water Quality Table and in other parts of this report are defined here.

**Maximum Contaminant Level or (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLG's are set as close to the MCLG's as feasible using the best available treatment technology.

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

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of drinking water disinfectant below which there is no known or expected risk to health.

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

**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 approximately 11.5 days.

**Parts per Billion (ppb) or Micrograms per Liter (ug/l):** Are units of measure for concentration of a contaminant. A part per billion corresponds to one second in approximately 31.7 years.

**The "<" symbol:** A symbol which means less than. A result of <5 means that the lowest level that could be detected was a 5 and the contaminant in that sample was not detected.

**n/a:** Not applicable.

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.

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

## Water Quality Table

Contaminants (Units)	MCLG	MCL	Level Detected	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
<b>Inorganic Contaminants</b>							
Barium (ppm)	2	2	0.0997	NA	No	2014	Discharge of drilling wastes; Discharge from metal refineries, Erosion of natural deposits.
Copper (ppm)	1.3	AL=1.3	0.088	NA	No	2014	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Zero out of nineteen samples were found to have copper levels in excess of the Action Level of 1.3 ppm.							
Lead (ppm)	0	AL=15	14	< .001 - 0.014	No	2014	Corrosion of household plumbing systems; Erosion of natural deposits.
Two out of nineteen samples were found to have lead levels in excess of the Action Level of 15 ppb.							
<b>Volatile Organic Contaminants</b>							
Chloroform (ppb)	NA	NA	1.79	NA	No	2014	By-product of drinking water disinfection
Bromodichloromethane (ppb)	NA	NA	1.11	NA	No	2014	By-product of drinking water disinfection
<b>Disinfection Byproducts</b>							
Total Trihalomethanes (TTHM's) (ppb)	NA	80	6.88	NA	No	2016	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	NA	60	1.75	NA	No	2016	By-product of drinking water disinfection
<b>Residual Disinfectants</b>							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	.8	0.6 - 1.0	No	2016	Water additive used to control microbes.

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Annual Drinking Water Quality Report for 2016



In 2016 we had an unconditional license to operate.

## Working Hard for You

The Malvern Water Department 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 tests results, how to participate in decisions concerning your drinking water and water system contacts.

The Malvern Water Department water system operates 2 wells that pump approximately 300,000 gallons of water per day from an aquifer (water rich zone) within the Sandy Creek Buried Valley aquifer system.

## Source Water Protection

The Malvern Water Department works hard to maintain our system in order to provide high quality water to help keep you and your family healthy. To protect the Village ground water, we have an Emergency Contingency Plan in effect and we are implementing the Drinking Water Assessment Program provided to us by the EPA.

## Susceptibility

The susceptibility of the aquifer (source of drinking water) to contamination was determined by evaluating (1) site-specific and regional information (i.e., aquifer material, topography, soils, rate of ground water recharge, etc.), (2) pollution potential rating of the drinking water source protection area, (3) available ground water quality data, and (4) potential contaminant sources that were identified within the drinking water source protection area. The results of this evaluation indicate that the aquifer within the protection area has a high susceptibility because of the following reasons:

\* Available regional geologic and ground water information suggests no significant low permeability protective layer between the aquifer and the ground surface and also that the sand and gravel aquifer has a shallow depth to water; and  
\* Potential significant contaminant sources exist within the protection area.

A high susceptibility rating of the aquifer does not imply that the wellfield will become contaminated. It only means that the existing/known aquifer conditions are such that **ground water within the aquifer could** become impacted if the potential contaminant sources are not appropriately managed.

As in the past, we are committed to delivering the best quality drinking water. To that end we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please help us to protect our water supply by reporting any suspicious activity that you might see in or around our water plant to the local law authorities. For more information about this report, please contact the Malvern Water Department from 8:00 a.m. to 4:00 p.m., Monday thru Friday at 330-863-4900.

## Required Additional Health Information

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 at 1-800-426-4791.**

The sources of drinking water (both tap water and bottled 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 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 salt 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, 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.
- (F) **Lead contaminants**, 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 Malvern Water Department 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:

<http://www.epa.gov/safewater/lead>

In order to ensure that tap water is safe to drink, the 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.

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 for infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infections by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

## Water Efficiency, Human Health & the Environment

Depleting reservoirs and groundwater aquifers can put water supplies, human health and the environment at serious risk. Lower water levels can lead to higher concentrations of natural contaminants, such as radon and arsenic or human pollutants, such as agricultural and chemical wastes. Using water more efficiently helps maintain supplies at safe levels, protecting human health and the environment. Also when we use water more efficiently we reduce the need for costly water

supply infrastructure investments and new wastewater treatment facilities.

## About Your Drinking Water

The EPA requires regular sampling to ensure drinking water safety. The Malvern Water Department conducted sampling for (Total Haloacetic Acids, Total Trihalomethanes, nitrate and Coliform contaminants in 2016.

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.

During our March 2016 EPA inspection, we received two violations which were immediately remedied to keep us in compliance with the EPA.

- (1) Well #5 was found to be in the 100 year flood plain. The well casing was raised by Ohio Drilling 3 feet, to keep us in compliance with EPA standards.
- (2) Operator records were found to be unacceptable because they were kept in a spiral bound book and needed to be in a hard bound book which was remedied by purchasing a hard bound book for daily use.

The deadline to correct these violations were met in a timely manner being within 120 days from the findings and to keep us in compliance with the Ohio EPA rules.

## Simple Steps to Save Water

By making just a few small changes to your daily routine you can save a significant amount of water, which will help you save money and preserve water supplies for future generations. The Water Sense label will help you identify high-efficiency products. Along with using Water Sense labeled products, adopt the following **water-efficient** practices to save money and protect the environment.

**Fix that leak**-a leaky toilet can waste about 200 gallons every day.

**Water wisely**  
**Make it a full load**