

City of PIQUA

2023 Water Quality Report



MAYOR
Cindy Pearson

CITY MANAGER
L. Paul Oberdorfer

UTILITES DIRECTOR
Kevin Krejny

WATER SYSTEM SUPERINTENDENT
Todd Hone

Drinking Water Consumer Confidence Report For 2022

The Piqua Municipal Water System has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. This report is required as part of the Safe Drinking Water Act Reauthorization of 1996 and is required to be delivered to the consumers by July of 2023. 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.

The City of Piqua's drinking water met all of the Ohio EPA standards for 2022. Water quality is the number one priority of the Piqua Water Treatment Plant. Constant testing (more than 200 analysis daily) by the dedicated staff of certified operators and laboratory personnel ensure the highest standards for drinking water quality are being met at all times.

How do I participate in decisions concerning my drinking water?

If you have any questions or would like more information on your drinking water, visit Piqua's web page at www.piquaoh.org, or contact Todd Hone of the Piqua Municipal Water System at (937) 778-2090, or by e-mail at thone@piquaoh.gov.

Public participation is encouraged at regular meetings of the City of Piqua Commission, which meets the first and third Tuesdays at 6:00 P.M. at the Piqua Municipal Government Complex located at 201 W. Water Street.

About your drinking water.

The EPA requires regular sampling to ensure drinking water safety. The Piqua Municipal Water System conducted sampling for bacteria, inorganic, synthetic organic, and volatile organic contaminant sampling during 2022. Samples were collected for a total of 87 different contaminants, most of which were not detected in the Piqua Municipal Water System's water supply. 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.

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).

What are sources of contamination to drinking water?

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, 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, 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).

Elevated Lead Health Effects

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 Piqua 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 drinking 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Disinfection By-Products

Some people who drink water containing TTHM's in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of gastrointestinal cancer. Prolonged exposure to HAA5's in excess to the MCL has been determined to be a possible link to variants of bladder and colorectal cancers.

WATER QUALITY DATA

How to read the Water Data Table: EPA establishes the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to regulatory limits. Substances that were tested for, but not detected, are not included in this table.

Definitions: MCLG: Maximum Contaminant Level Goal, or 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. - MCL: Maximum Contaminant Level, or 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. - AL: Action Level, or the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. - TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

-“<”: a symbol which means less than. A result of <5 means that the lowest level that could be detected was 5, and the contaminant in that sample was not detected. - NA: Not Applicable or no standard set. ND: Not Detected. Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG’S do not reflect the benefits to 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.

Abbreviations: ppm: Parts per Million 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. - ppb: Parts per Billion 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.

| Contaminants (Units) | MCLG | MCL | Level Found (Annual Avg.) | Range of Detection | Violation | Sample Year | Typical Source of Contaminants |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|---------------------------|--------------------|-----------|-------------|-------------------------------------------------------------------------------------------------------------------------|
| Microbiological Contaminants | | | | | | | |
| Turbidity (NTU) | NA | TT | 0.21 (Highest Level) | 0.04 – 0.21 | NONE | 2022 | Soil runoff |
| Turbidity (% samples meeting Standards) | NA | TT | 99.9% | 99.9% - 100% | NONE | 2022 | |
| Radioactive Contaminants | | | | | | | |
| | | | | | | | |
| Inorganic Contaminants | | | | | | | |
| Fluoride (ppm) | 4 | 4 | 0.96 | 0.80 – 1.25 | NONE | 2022 | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories |
| Lead (ppb) | 0 | AL=15 | 0.8 | <0.5-26.8 | NONE | 2022 | Corrosion of household plumbing systems. |
| One out of Thirty samples were found to have lead in excess of the Action Level of 15 ppb. Results based on 90% Lead Level | | | | | | | |
| Copper (ppm) | 1.3 | AL=1.3 | 0.0274 | <0.005 – 0.0552 | NONE | 2022 | Corrosion of household plumbing systems. |
| Zero out of Thirty samples were found to have copper levels in excess of the Action Level of 1.3 ppm. Results based on 90% Copper Level | | | | | | | |
| Barium (ppm) | 2 | 2 | 0.042 (Single Sample) | NA | NONE | 2022 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Nitrate (ppm) | 10 | 10 | 2.57 (Highest Level) | <0.10 – 2.57 | NONE | 2022 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Synthetic Organic Contaminants including Pesticides and Herbicides | | | | | | | |
| Atrazine (ppb) | 3 | 3 | <0.089 | <0.072 – 0.14 | NONE | 2022 | Runoff from herbicide used on row crops |
| Volatile Organic Contaminants | | | | | | | |
| TTHMs (Total trihalomethanes) (ppb) | N/A | 80 | 48.4 | 11.4 – 105 | NONE | 2022 | By-product of drinking water chlorination |
| HAA5’s (Haloacetic Acids) (ppb) | N/A | 60 | 20.7 | ND – 25.3 | NONE | 2022 | By-product of drinking water chlorination |
| Residual Disinfectants | | | | | | | |
| Chlorine (ppm) | MRDL=4 | MRDLG=4 | 1.05 | 0.93 –1.22 | NONE | 2022 | Water additive used to control microbes |

The City of Piqua tested for microcystins (toxins produced by some types of blue green algae) in both our source water and finished water throughout 2022. All sampling came out as non- detectable. Microcystins Action Levels are based on U.S. EPA’s health levels of > 0.3 ug/L for children under 6 and > 1.6 ug/L for children over 6 and adults.

Turbidity is a measure of the cloudiness of the water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU’s in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, the Piqua Municipal Water System’s highest recorded turbidity result for 2022 was 0.21 NTU and the lowest monthly percentage of samples meeting the turbidity limit was 99.9%.

The value reported under “Level Found” for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

In 2020, our PWS was sampled as part of the State of Ohio’s Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled, and none were detected in our finished drinking water. (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them waterproof, stain resistant, or nonstick. Also, previously used in firefighting foam. For more information about PFAS, please visit pfas.ohio.gov.

| Contaminants (Units) | MCLG | MCL | Level Found | Range of Detection | Violation | Sample Year | Typical Source of Contaminants |
|----------------------------------------------------|------|-----|-------------|--------------------|-----------|-------------|-----------------------------------------------------|
| Combined Raw Water Sample (Composited Data) | | | | | | | |
| Cryptosporidium (Oocysts/liter) | NA | NA | NA | 0.0 – 4.00 | No | 2018 | Human and animal activity; combined sewer overflows |

The City of Piqua Water Department monitored for Cryptosporidium in the source water starting June 2017-October 2018. Cryptosporidium was detected in 1 sample collected from the raw water in 2018. **It was not detected in the finished water that was sent to our consumers.** Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring of source water indicates the presence of these organisms. Currently test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Source water information.

The Piqua Municipal Water System receives its drinking water from the following three surface water sources:
 The Piqua Hydraulic System- 5.4 % The Gravel Pit- 40 % The Great Miami River- 54.6 %

Source Water Assessment.

In June of 2003 the Ohio EPA performed an assessment of our source water. The City of Piqua Public Water System uses surface water drawn from the Piqua Hydraulic System, a gravel pit, and the Great Miami River. For the purposes of source water assessments, in Ohio all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens, which may rapidly arrive at the public drinking water intake with little warning or time to prepare. The City of Piqua drinking water source protection area contains a number of potential contaminant sources, which include runoff from row crop agriculture, septic systems, housing and commercial development in the watershed of the Hydraulic System. Potential spills at numerous road and rail bridges crossing the Great Miami River and its tributaries are also a threat.

The City of Piqua Public Water System uses a multiple barrier system to treat the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. Implementing measures to protect the City’s drinking water sources can further decrease the potential for water quality impacts. More detailed information is provided in the City of Piqua Drinking Water Source Assessment Report, which can be viewed by calling Todd Hone, Water System Superintendent at 937-778-2090. Should you need to find your Source Water Assessment Information, contact the City of Piqua Water Department with any questions and/or concerns.

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

DRINKING WATER NOTICE

Monitoring requirements not met for Piqua City PWS

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the Second Quarter of 2021 time period we did not monitor for the following contaminants and therefore cannot be sure of the quality of our drinking water during that time: Total Haloacetic Acids (HAA5).

What Should I Do?

This notice is to inform you that Piqua City PWS did not monitor and report results for the presence of the contaminants listed above in the public drinking water system during the Second Quarter of 2021 time period, as required by the Ohio Environmental Protection Agency. You do not need to take any actions in response to this notice.

What Is Being Done?

Upon being notified of this violation, the water supply was required to have the drinking water analyzed for the above mentioned parameters. The water supplier will take steps to ensure that adequate monitoring will be performed in the future.

A sample was (will be) collected on SEPT 9, 2021.

Sample results and additional information may be obtained by contacting Piqua City PWS at:

Contact Person: LODD HONE

Phone Number: (937) 778-2090

Mailing Address: 9801 STATE ROUTE 66 or thone@piquaoh.gov
PIQUA, OH 45356

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

PWSID: OH5501211 Facility ID: DS1

Date Distributed: _____