

A dynamic, high-speed photograph of water splashing against a light blue background. The water is captured in various stages of motion, with droplets and streams of water creating a sense of movement and freshness. The lighting highlights the texture and clarity of the water.

ANNUAL WATER QUALITY REPORT

Reporting Year 2021

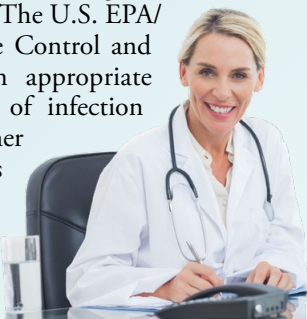
Presented By
**City of Girard Water
Department**

We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable. We will continue to work to provide you with the highest-quality water possible.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Source Water Assessment

For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from source to the intake. Based on the information compiled for this assessment, the MVSD Meander Creek Reservoir protection area is susceptible to agricultural runoff from row crop agriculture and eight animal feedlots, oil and gas wells, failing home and commercial septic systems, new housing and commercial development that could increase runoff from roads and parking lots, and numerous road crossings over the Meander Creek Reservoir and its tributaries. While source water for MVSD's public water system is considered susceptible to contamination, historically, MVSD has effectively treated this source water to meet drinking water quality standards. The potential for water quality impacts can further be decreased by implementing measures to protect Meander Creek Reservoir and its watershed.

More detailed information is provided in MVSD's Drinking Water Source Assessment report, which can be obtained by calling Jonathan Jamison at (330) 652-3614. To view the approved MVSD Meander Creek Reservoir Drinking Water Source Protection Plan, visit meanderwater.org and look under the link for District Info, Public Records. For more information on the testing of lead and fracking wastes, see Water Quality on the same website..

Where Does My Water Come From?

The City of Girard Water Department is part of the Mahoning Valley Sanitary District (MVSD). We are a satellite distribution system, meaning we do not treat our own water but instead purchase it from other public water sources. The City of Girard purchases water from Niles, Trumbull County, Youngstown, and McDonald. All these water systems are part of MVSD, which draws its water from the Meander Creek Reservoir.

Think Before You Flush!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of our waterways by disposing responsibly. To find a convenient drop-off location near you, please visit <https://bit.ly/3IeRyXy>.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two 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. A list of laboratories certified in the State of Ohio to test for lead may be found at <http://www.epa.ohio.gov/ddagw> or by calling (614) 644-2752. 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 www.epa.gov/safewater/lead.



QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Howard Zickefoose, Water Department Superintendent, at (330) 545-4208.

What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit <https://www.atsdr.cdc.gov/pfas/index.html>.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

“
When the well is dry, we
know the worth of water.
”

—Benjamin Franklin

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We had an unconditioned license to operate in 2021.

Three lead samples from Site 1, taken at different times, indicated lead above the action level of 15 parts per billion (ppb). Additional samples were taken from multiple locations within the same site immediately after the high results were detected. These samples were analyzed to determine whether the high levels were limited to within the home at Site 1. The findings were conclusive; the high samples were an internal issue and not associated with the City of Girard water supply.

REGULATED SUBSTANCES CITY OF GIRARD							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2021	[4]	[4]	1.9775	1.48–2.19	No	Water additive used to control microbes
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2021	60	NA	31.825	24–40.8	No	By-product of drinking water disinfection
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2021	80	NA	55.05	44.5–75.5	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2021	1.3	1.3	0.0855	ND–0.1580	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2021	15	0	0	ND–20.6	1/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

REGULATED SUBSTANCES MVSD							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Fluoride (ppm)	2021	4	4	1.02	0.9–1.12	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	2021	10	10	0.19	<0.10–0.35	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon [TOC] (ppm)	2021	TT ¹	NA	1.76	1.48–2.45	No	Naturally present in the environment
Turbidity ² (NTU)	2021	TT	NA	0.08	0.03–0.08	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2021	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff

UNREGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2021	3	3	0.086	NA	No	Run off from fherbicide used on row crops
Bromodichloromethan (ppb)	2021	NA	NA	9.8	NA	No	Individual chemical found in disinfection by-products
Chloroform (ppb)	2021	NA	Na	42.9	NA	No	Individual chemical found in disinfection by-products

PFOS AND PFOAS

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
PFOS (ppb)	2021	>70 single of combined with PFOA	NA	12.9	NA	No	Man-made chemical applied to many consumer goods to make them waterproof, stain resistant, or nonstick, and in cosmetics, fast food packaging and a type of firefighting foam.
PFHxS (ppb)	2021	>140	NA	5.42	NA	No	

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
PFAS	2021	NA	NA	Chemicals applied to consumer goods to make them waterproof, stain-resistant, or nonstick; cosmetics; fast food packaging; firefighting foam

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

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

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.



BY THE NUMBERS

The number of Americans who receive water from a public water system.

300
MILLION

1
MILLION

The number of miles of drinking water distribution mains in the U.S.

The number of gallons of water produced daily by public water systems in the U.S.

34
BILLION

135
BILLION

The amount of money spent annually on maintaining the public water infrastructure in the U.S.

The number of active public water systems in the U.S.

151
THOUSAND

199
THOUSAND

The number of highly trained and licensed water professionals serving in the U.S.

The age in years of the world's oldest water, found in a mine at a depth of nearly two miles.

2
BILLION

¹The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

²Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported above MVSD's highest recorded turbidity result for 2021 was 0.08 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100 %.