

The City of Hillsboro

2021 Annual Water-Quality Report

At the City of Hillsboro Water Treatment Plant, we are proud of the fine drinking water we provide. This is our annual water quality report. It shows the source of our water, lists the results of our tests, and contains important information about water and health. The City of Hillsboro Water Plant staff will notify you immediately if there is any reason for concern about our water. We have a current, unconditioned license to operate our water system.

We encourage public interest and participation in our community's decisions affecting drinking water. Regular monthly utility committee meetings take place as notified in the Times Gazette and on Time Warner Channel 15.

Water Sources and Source Water Assessment

The City of Hillsboro's water comes entirely from surface sources. These sources include Clear Creek, the Selph Road reservoir, and the Liberty Park reservoir. In 2004, the Ohio EPA completed a source water assessment of all watersheds that could affect the water supplies for the City of Hillsboro. A source water assessment is a tool that is used to find possible areas of access for contamination of the source water supply. Some areas of access were found during the assessment; therefore, a high susceptibility to contamination has been assigned. These areas are being monitored and access minimized where possible. Contact Jason Bernard @ (937) 393-1325 for a copy of the report.

What are sources of contamination to drinking water?

The sources of 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 operation 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 the 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.

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 Hillsboro Water Plant 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 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 or at <http://www.epa.gov/safewater/lead>.

The EPA requires regular sampling to ensure drinking water safety. The City of Hillsboro conducted sampling for bacteria; inorganics; total chlorine; synthetic organic chemicals; volatile organic chemicals; total organic carbon and disinfection by-product contaminants during 2021. Samples were collected for a total of over 75 different contaminants, most of which were not detected in the City of Hillsboro potable water. 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.

What Does The Contaminant Table Mean?

The table shows the results of our water-quality analyses. Although we test for numerous different contaminants, only those listed below were detected. Every regulated contaminant that we detected in the water, even in the smallest trace, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important.

Contaminant	Sample Year	Unit	MCL	MCLG	Detected Level	Range of Detection	Violation?	Typical Source
Microbiological								
Turbidity	2021	NTU	TT	N/A	.16	.05-.16	NO	Soil Runoff
Total Coliform Bacteria	2021	+/-	2 or more	0	0	0	NO	Naturally occurring in the environment
Volatile Organics								
DBP- Total Trihalomethanes	2021	ppb	AQA=80	N/A	AQA=53.3	32.4-68.1	NO	Disinfection Byproducts
DBP- Haloacetic Acids	2021	ppb	AQA=60	N/A	AQA=29.6	15.3-35.2	NO	Disinfection Byproducts
Inorganics								
Fluoride	2021	ppm	4	4	1.24	.70-1.24	NO	Added for dental health
Nitrate	2021	ppm	10	10	0.30	<.10-.30	NO	Soil runoff
Lead	2019	ppb	AL=15	0	0.96	N/A	NO	Homeowners Plumbing. Homeowners plumbing
Copper	2019	ppm	AL=1.3	1.3	0.344	N/A	NO	Discharge of drilling wastes
Barium	2021	ppm	2	2	0.036	N/A	NO	
Nickel	2021	ppm	0.1	0.1	0.0028	N/A	NO	Erosion of natural deposits

Key to Table

AL = Action Level

AQA= Annual Quarterly Average

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

MRDL = Maximum Residual Disinfectant Level

MRDLG = Maximum Residual Disinfectant Level Goal

NTU = Nephelometric Turbidity Units

ppm = parts per million, or milligrams per liter (mg/l) **equal to one penny out of ten thousand dollars**

ppb = parts per billion, or micrograms per liter (µg/l) **equal to one penny out of ten million dollars**

TT = Treatment Technique

DBP = Disinfection Byproducts

< Less than. A result of <5.0 would mean that the lowest level that could be detected was 5.0, and that the contaminant was not detected.

Maximum Contaminant Level or MCL: 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.

Maximum Contaminant Level Goal or 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 Residual Disinfectant Level or 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.

Maximum Residual Disinfectant Level Goal or 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 of the use of disinfectants to control microbial contaminants.

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

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

0 out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb.

0 out of 20 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.

Turbidity Monitoring

Turbidity 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 .30 NTU in 95% of the daily samples, and shall not exceed 1.0 NTU at any time. As reported above, the City of Hillsboro's single highest recorded turbidity result for 2021 was 0.16 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, and diarrhea and associated headaches.

Additional Contaminants Monitored:

Contaminant	Sample Year	Unit	MRDL	MRDLG	Detection Level	Range of Detection	Violation?
TOTAL CHLORINE	2021	ppm	4	4	1.5	1.3-1.8	NO
TOTAL ORGANIC CARBON	2021	ppm	N/A	N/A	1.8	1.0-2.5	NO

TOTAL ORGANIC CARBON – A value of less than (1.0) indicates a violation of TOC removal requirements.

Additional Health Information.

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. 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 (800-426-4791).

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 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 infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

We at the City of Hillsboro Water Department work 365 days a year to provide the highest quality of water possible, said Jason Bernard. We ask that all of our customers help us to protect our water sources, which are the heart of our community, our way of life, and our children's future. Please report any suspicious activity or obvious criminal activity at any of the water department's tower sites, reservoirs, or water treatment plant, to water plant personnel at (937) 393-1325.

If you have any questions about this report or concerning your water utility, please contact:

Jason S. Bernard
Superintendent of Water
City of Hillsboro Water Treatment Plant
(937) 393-1325

“This institution is an equal opportunity provider, employer, and lender.”