Quality on Tap

To provide Water, a life-sustaining resource, for the well-being and economic vitality of the community.

City of Heath

DIVISION OF WATER

2016 Water Quality Report

City of Heath
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CITY OF HEATH

heathohio.gov

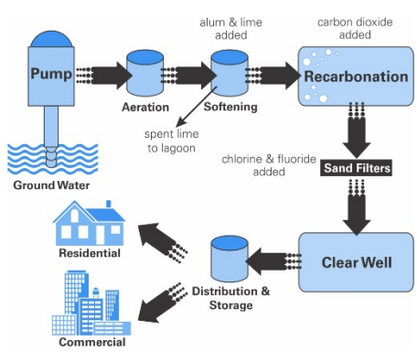
The City of Heath has prepared the following report to provide information to you, the customer, on the quality of our drinking water. Included within this report is general health information, water quality test results, and how to participate in decisions concerning your drinking water.

About Your Drinking Water

The five objectives of water treatment are to:

1) **Kill disease-causing organisms**
2) **Remove unwanted chemicals**
3) **Remove sediment**
4) **Fluoridate to approved health standards**
5) **Produce water with pleasant taste and odor**

Water from the Heath Water Plant goes through a complex multibarrier process to achieve these objectives. This process is as follows: Water is pumped from Heath's underground aquifers into the Water Treatment facility. Aeration occurs, and the water is softened through the use of alum and lime. Carbon dioxide is added to adjust the pH. Any remaining particles are trapped as the water is filtered through a mix of sand and gravel. Chlorine is added at this point to kill any trace of undesirable organisms, and a small amount of fluoride is added to bring concentrations up to EPA requirements. Clean water is pumped to distribution points throughout the city's residential, commercial, and industrial base. The EPA requires regular sampling to ensure drinking water safety. The plant is in complete compliance with the Federal Safe Drinking Water Act and the State of Ohio Environmental Protection Agency's drinking water regulations. The City of Heath has a current unconditioned license to operate the water system.



Special Information Available

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals 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 from their health providers regarding drinking water. **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 at 1-800-426-4791.**

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 Heath 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 **https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-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 **EPA's Safe Drinking Water Hotline at 1-800-426-4791.**

The Ohio Administrative Code Rule 3745-83-01-C-1, Operational Requirements, Disinfection, requires that each community water system maintains a minimum chlorine residual of at least 0.2 mg/L free or 1.0 mg/L combined chlorine throughout the distribution system at all times. A review of 2016 monthly operating reports for the City of Heath reveals that there were no samples in which the required minimum chlorine residuals were not met.

Water is a valuable resource that most people take for granted. As we all strive to become more involved in protecting our environment, we need to have a better understanding of the interdependency of all life as it revolves around water.

We at the Heath Division of Water look forward to the opportunity to meet with all segments of our community, to provide a better understanding of water as a resource and to encourage a commitment to water conservation.

The City of Heath offers automatic deductions from your checking or savings account as a convenient way to pay your water and sewer bills. Please contact Denise Rush at (740) 522-1420, Ext. 2, for information about setting up your account. View your bills and pay online at **www.heathohio.gov.**

We want to listen to the questions and concerns of our constituents, and respond with more specific information, to better serve our community. City Council meetings are open to the public. These meetings are held the 1st and 3rd Monday of each month, 7:30 p.m. at the Heath Municipal Building, 1287 Hebron Road, Heath, Ohio 43056, (740) 522-1420. Mr. Mike Hammond is the superintendent of the Heath Water Plant, 70 Dorsey Mill Road, and can be reached at (740) 522-1677. Mr. John Appleman is the superintendent of the Division of Water Distribution and can be reached at (740) 522-6282.

2016 Water Quality Report – Finished Water

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violations	Year	Typical Sources of Contaminants
Microbiological Contaminants							
Total Coliform Bacteria	0%	<5% of Monthly Samples	0	0	No	2016	Naturally present in the environment
Inorganic Contaminants							
Antimony (ppb)	6	6	3	N/A	No	2015	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	0	10	<3.0	<N/A	No	2016	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.046	N/A	No	2015	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	4	4	0.5	N/A	No	2015	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	5	5	0.5	N/A	No	2015	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries & paints
Chromium (ppb)	100	100	10	N/A	No	2015	Discharge from steel and pulp mills; Erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	0.015	N/A	No	2015	Corrosion of household plumbing systems; Erosion of natural deposits
			0 out of 20 samples were found to have copper levels in excess of 1.3 ppm				
Fluoride (ppm)	4	4	1.04	N/A	No	2015	Water additive – protects teeth
Lead (ppb)	0	AL=15	4.8	N/A	No	2015	Corrosion of household plumbing systems; Erosion of natural deposits
			0 out of 20 samples were found to have lead levels in excess of 15 ppb				
Mercury (ppb)	2	2	0.2	N/A	No	2015	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from crop land
Nitrate (ppm)	10	10	0.1	N/A	No	2015	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	1	1	0.1	N/A	No	2015	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	3	N/A	No	2015	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium (ppb)	0.5	2	1	N/A	No	2015	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Volatile Organic Contaminants							
Benzene (ppb)	0	5	0.5	N/A	No	2015	Discharge from factories; Leaching from gas storage tanks & landfills
Carbon tetrachloride (ppb)	0	5	0.5	N/A	No	2015	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	100	100	0.5	N/A	No	2015	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	600	600	0.5	N/A	No	2015	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	75	75	0.5	N/A	No	2015	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	0	5	0.5	N/A	No	2015	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	7	7	0.5	N/A	No	2015	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	70	70	0.5	N/A	No	2015	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	100	100	0.5	N/A	No	2015	Discharge from industrial chemical factories
Dichloromethane (ppb)	0	5	0.5	N/A	No	2015	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	0	5	0.5	N/A	No	2015	Discharge from industrial chemical factories
Ethylbenzene (ppb)	700	700	0.5	N/A	No	2015	Discharge from petroleum refineries
Haloacetic Acids (HAA5) (ppb)	0	60	6.1	<6.0-6.1	No	2016	By-product of drinking water disinfection
Styrene (ppb)	100	100	0.5	N/A	No	2015	Discharge from rubber and plastic factories; Leaching from landfills
Tetrachloroethylene (ppb)	0	5	0.5	N/A	No	2015	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	70	70	0.5	N/A	No	2015	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	200	200	0.5	N/A	No	2015	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	3	5	0.5	N/A	No	2015	Discharge from industrial chemical factories
Trichloroethylene (ppb)	0	5	0.5	N/A	No	2015	Discharge from metal degreasing sites and other factories
Total Trihalomethane (TTHMs) (ppb)	0	80	4.4	2.5-6.0	No	2016	By-product of drinking water disinfection
Toluene (ppm)	1	1	0.0005	N/A	No	2015	Discharge from petroleum factories
Vinyl Chloride (ppb)	0	2	0.5	N/A	No	2015	Leaching from PVC piping; Discharge from plastics factories
Xylenes (ppm)	10	10	0.0005	N/A	No	2015	Discharge from petroleum factories; Discharge from chemical factories
Radioactive Contaminants							
Gross Alpha (pCi/L)	0	15	3	N/A	No	2012	Erosion of natural deposits
Radium 228 (pCi/L)	0	5	0.57	N/A	No	2012	Erosion of natural deposits
Residual Disinfectants							
Total Chlorine (ppm)	4 (MCLG)	4 (MRDLG)	2.2	0.11-2.2	No	2016	Water additive used to control microbes

Unregulated Contaminants					
Contaminants (Units)	Plant Tap		Distribution		Year
	Average	Range	Average	Range	
1, 1-dichloroethane (ppb)	<0.03	N/A	<0.03	N/A	2015
1, 2, 3-trichloropropane (ppb)	<0.03	N/A	<0.03	N/A	2015
1, 3-butadiene (ppb)	<0.1	N/A	<0.1	N/A	2015
1, 4-dioxane (ppb)	<0.07	N/A	<0.07	N/A	2015
Bromodichloromethane (ppb)	N/A	N/A	1.2	0.9-1.8	2016
Bromomethane (ppb)	<0.2	N/A	<0.2	0.5-1.2	2015
Bromoform (ppb)	N/A	N/A	N/A	<0.5-1.0	2016
Chlorate (ppb)	<20	N/A	<20	<0.5-0.6	2015
Chloromethane (ppb)	<0.2	N/A	<0.2	N/A	2015
Chloroform (ppb)	N/A	N/A	1.6	1.2-1.9	2016
Chromium (ppb)	N/A	<0.2-0.234	N/A	1.0-1.7	2015
Chromium-6 (ppb)	0.13	0.0913-0.17	0.11	<0.2-1.657	2015
Cobalt (ppb)	<1	N/A	<1	0.103-0.122	2015
Dicholoroacetic acid (ppb)	N/A	N/A	N/A	<1.0-2.0	2016
Dibromoacetic acid (ppb)	N/A	N/A	N/A	<1.0-2.1	2016
Dibromochloromethane (ppb)	N/A	N/A	N/A	<0.5-1.3	2016
Germanium (ppb)	<1	N/A	<1	<0.5-0.8	2015
HCFC-22 (ppb)	<0.08	N/A	<0.08	N/A	2015
Halon 1011 (ppb)	<0.06	N/A	<0.06	N/A	2015
Manganese (ppb)	N/A	<1-1.21	N/A	N/A	2015
Molybdenum (ppb)	43.327-45	44.16	42.724-43	<1-1.847	2015
Monobromoacetic acid (ppb)	N/A	N/A	<1.0	N/A	2016
Monochloroacetic acid (ppb)	N/A	N/A	<2.0	N/A	2016
n-propylbenzene (ppb)	<.03	N/A	<.03	42.86	2015
Nickel (ppb)	N/A	N/A	10	N/A	2015
PFBS (ppb)	<0.09	N/A	<0.09	N/A	2015
PFHpA (ppb)	<0.01	N/A	<0.01	N/A	2015
PFHxS (ppb)	<0.03	N/A	<0.03	N/A	2015
PFNA (ppb)	<0.02	N/A	<0.02	N/A	2015
PFOA (ppb)	<0.02	N/A	<0.02	N/A	2015
PFOS (ppb)	<0.04	N/A	<0.04	N/A	2015
sec-butylbenzene (ppb)	<0.04	N/A	<0.04	N/A	2015
Strontium (ppb)	1357.11	1174.215-1540	1255.03	1130.055-1380	2015
Tellurium (ppb)	<1	N/A	<1	N/A	2015
Trichloroacetic acid (ppb)	N/A	N/A	N/A	<1.0-1.2	2016
Vanadium (ppb)	N/A	<0.2-0.216	<0.2	N/A	2015

Definitions & Terms

Action Level (AL)

The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum Contaminant Level (MCL)

The highest level of a contaminant allowed in drinking water

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected risk to health

Maximum Residual Disinfectant Level (MRDL)

The highest level of a disinfectant allowed in drinking water

Maximum Residual Disinfectant Level Goal (MRDLG)

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 contamination.

N/A

Not applicable.

pCi/L

picoCuries per Liter

Parts per Billion (ppb)

Units of measurement for concentration of a contaminant. A part per billion corresponds to one second in roughly 31.7 years.

Parts per Million (ppm)

Units of measurement for concentration of a contaminant. A part per million corresponds to one second in roughly 11.5 days.

<

A Symbol which means less than. A result of <5 means that the lowest level that could be detected is 5 and the contaminant in that sample was not detected.

Source of Water

The City of Heath has two well fields. One is located at Hoback Park on Dorsey Mill Rd. The other is located on South Fork Rd. Both well fields should produce over 10 million gallons of water per day. All of the municipal wells at Heath have been developed in a broad and thick gravel aquifer that generally lies from 150 to 200 feet below ground surface, and parallels the South Fork of the Licking River. This aquifer is part of an extensive buried valley of glacial deposits occupying a broad ancient valley, which extends from Hebron through Newark. This formation consists of sand and gravel intermixed in lenses with glacial tills and clays.

The aquifer that supplies drinking water to the City of Heath has a low susceptibility to contamination, due to (1) its depth, (2) the thick layer of clay that covers the aquifer in which the drinking water well is located, and (3) the low-risk nature of the existing potential contaminant sources identified. This does not mean that this well field cannot become contaminated, only that the likelihood of contamination is relatively low. Future contamination can be avoided by implementing protective measures. The report, which includes more detailed information, is available by calling The Water Treatment Plant, 70 Dorsey Mill Road, (740) 522-1677 or Ohio EPA.

Distribution System

The distribution system consists of approximately 86 miles of water main, six booster stations and five storage facilities. There are two underground concrete reservoirs with a combined capacity of 1.5 million gallons, and three standpipes with a combined capacity of 1.1 million gallons.

There are approximately 520 facilities where backflow prevention devices have been installed. These units are inspected at the time of installation and every 12 months thereafter. The water main sizes range from 6 inches to 16 inches.

History

The first water treatment plant was built in 1957 with a capacity of one million gallons per day. As the demand for water supply grew, and the population increased, the city made extensive upgrades to the plant and distribution system from 1969 to present day. In 1998, the City completed a major upgrade to the treatment facilities, raising the production capacity from two million gallons per day to four million gallons per day. In 2014, the City upgraded the plant with new high service pumps and a solids contact clarifier to replace aging equipment. The City has recently replaced the WCLT standpipe due to age, to serve future demands, and to improve the water pressure in neighboring areas.

Valuable Information Concerning Your Water

Heath's drinking water was voted the best drinking water in the State of Ohio in 1994. Unlike most cities, Heath's drinking water comes from underground aquifers, instead of a more polluted surface source. The city water is softened to 100 mg/l making home water softeners unnecessary. Heath's ground water has a natural fluoridation, with only small amounts of fluoride added during the treatment process to meet EPA regulations.

What are Sources of Contamination to Drinking Water?

The source of drinking water for both tap 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 cases, radioactive materials, and can pick up substances resulting from the presence of animals or 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 run-off, 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 run-off, 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 station, urban storm water run-off and septic systems; E) radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

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.