



AKRON
Water Supply Bureau
Your Clean Water Resource.

AKRON WATER SUPPLY BUREAU

DRINKING WATER QUALITY REPORT

JUNE 2016

DANIEL HARRIGAN
MAYOR, THE CITY OF AKRON





SAFE WATER IS OUR PRIORITY

National Primary Drinking Water Regulation Compliance

Water provided by the Akron Water Supply Bureau meets the current United States Environmental Protection Agency (USEPA) and Ohio Environmental Protection Agency (OEPA) regulatory requirements by a wide margin.

Water Source

Three impounding reservoirs take surface water from the Upper Cuyahoga River. Water is stored and released from Wendell R. LaDue Reservoir and East Branch Reservoir, both in Geauga County. These reservoirs supplement Lake Rockwell, located in Franklin Township, Portage County, 2.5 miles north of Kent, Ohio. Water from Lake Rockwell is treated at the nearby water supply plant, pumped 11 miles to Akron through three force mains into equalizing reservoirs and distributed to more than 95,000 households. Because 21 percent of the system is at higher elevations, eight districts are supplied by additional pump stations and tanks.

Source Water Contamination

While the source water for the City of Akron Public Water System is considered susceptible to contamination, historically, the City of Akron Public Water System has effectively treated this source water to meet drinking water quality standards.

Potential sources of contamination include agricultural runoff, failing on-site wastewater treatment systems (septic systems), municipal wastewater treatment discharges and non-point sources. In addition, the source water is susceptible to contamination through derailments, motor vehicle accidents or spills at sites where the corridor zone is crossed by roads and rail lines, or at fuel storage and vehicle service areas located adjacent to the corridor zone.

Please note that this assessment is based on data available and may not reflect current conditions. Water quality, land uses and other potential sources of contamination may change over time.

For more information about the source water assessment program, go to www.epa.ohio.gov/ddagw/swap.aspx.

For further information regarding Akron's source water assessment, please write to Akron Water Supply at 1570 Ravenna Road, Kent, OH 44240-6111.

Required Health Information

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 animal or human activity.

Contaminants that may be present in source water include:

1. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
2. **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
3. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
4. **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 stormwater runoff and septic systems.
5. **Radioactive contaminants**, which can be naturally occurring or the result of oil and gas production and mining activities.

HOW TO READ THE FOLLOWING TABLES

This report is based on tests conducted in 2015 by the Akron Water Supply Bureau. Terms used in the Water Quality Table and in other parts of this report are defined here.

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

Maximum Contaminant Level Goal (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 Contaminant Level (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 Residual Disinfectant Level (MRDL):

The highest residual disinfectant level allowed.

Maximum Residual Disinfectant Level Goal (MRDLG):

The level of residual disinfectant below which there is no known or expected health risk.

Detected Level: The average level detected of a contaminant for comparison against the acceptance levels for each parameter. These levels could be the highest single measurement or an average of values, depending on the contaminant.

Range: The range of all values for samples tested for each contaminant.

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

Key to Tables

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)

ppb = Parts per billion, or micrograms per liter (µg/L)

TT = Treatment Technique

NA = Not Applicable

NOT UNDER OHIO EPA REGULATION BUT OF GENERAL INTEREST

	Average Detected Level	Range
Alkalinity	83 mg/L	42 - 118 mg/L
Hardness (metric units)	121 mg/L	70 - 158 mg/L
Hardness (English units)	7 grains per gallon	4 - 9 grains per gallon
pH	7.2 units	6.9 - 7.9 units
Sodium	44 mg/L	NA, one test, in 2015
Temperature (metric units)	14° C	1.0° - 25.4° C
Temperature (English units)	57° F	34° - 78° F
Total Organic Carbon	2.84 mg/L	1.90 - 3.73 mg/L
Total solids	272 mg/L	272 - 272 mg/L

UNREGULATED CONTAMINANT MONITORING RULE 3

	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled
Chlorate (ppb), plant tap	NA	NA	279	20 - 517	NO	2014
Chlorate (ppb), distribution system	NA	NA	571	420 - 854	NO	2014
Chromium (total) (ppb), plant tap	NA	NA	0.22	0.20 - 0.26	NO	2014
Chromium (total) (ppb), distribution system	NA	NA	0.27	0.20 - 0.31	NO	2014
Chromium-6 (ppb), plant tap	NA	NA	0.050	0.044 - 0.056	NO	2014
Chromium-6 (ppb), distribution system	NA	NA	0.088	0.056 - 0.13	NO	2014
Strontium (ppb), plant tap	NA	NA	75.6	70.0 - 84.9	NO	2014
Strontium (ppb), distribution system	NA	NA	74.8	66.4 - 83.0	NO	2014
Vanadium (ppb), plant tap	NA	NA	0.64	0.20 - 1.30	NO	2014
Vanadium (ppb), distribution system	NA	NA	0.57	0.20 - 1.1	NO	2014

About Unregulated Contaminant Monitoring Rule 3

Our utility is committed to protecting public health and meets or surpasses all state and federal health standards for tap water. To help advance the science of drinking water, we have been collecting data for the EPA since the rule was enacted in January 2013. Collecting information about the occurrence of these compounds in water supplies is the first step in the EPA's efforts to determine whether they should be regulated. The presence of a compound does not necessarily equate to a health risk; the concentration of a compound is a far more important factor in determining whether there are health implications. We will closely monitor both the concentrations of these compounds and the EPA's health studies and will keep you informed of any developments. Should the EPA ultimately determine that regulation is warranted, we will take whatever steps are necessary to protect the health of our customers.

The EPA requires regular sampling to ensure drinking water safety. The City of Akron Water Supply Bureau conducted sampling for bacteria, inorganic, and volatile organic contaminants in 2015. Samples were tested for 99 different contaminants, most of which were not detected in the Akron water supply. The EPA approves the City of Akron to operate a public water system under license #7700011-1007890-2015.

Listed below is information on those contaminants detected.

The complete listing of "2015 All Water Tests" performed on Akron drinking water is available at <http://www.akronohio.gov/cms/Water/CCR/index.html> or call 330.678.0077.

WATER QUALITY TABLE FOR 2015

	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Microbiological Contaminants							
Turbidity (NTU)	NA	TT	0.14	0.04 - 0.14	NO	2015	Soil runoff.
Turbidity (% meeting standard)	NA	TT	100.0%	100% - 100%	NO	2015	
Total Organic Carbon (compliance ratio)	NA	TT	1.46	1.23 - 1.81	NO	2015	Naturally present in the environment.
Inorganic Contaminants							
Barium (ppm)	2	2	0.045	NA	NO	2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chlorite (ppm), avg. of 3 samples in the distribution system	0.8	1.0	0.70	0.15 - 0.78	NO	2015	By-product of drinking water chlorination.
Copper (ppm)	1.3	Action Level = 1.3	0.188	NA	NO	2015	Corrosion of household plumbing systems. Erosion of natural deposits.
Zero out of 50 samples were found to have copper levels in excess of the copper Action Level of 1.3 ppm.							
Fluoride (ppm)	4	4	1.02	0.78 - 1.25	NO	2015	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead (ppb)	0	Action Level = 15	9.8	NA	NO	2015	Corrosion of household plumbing systems. Erosion of natural deposits.
Two out of 50 samples were found to have lead levels in excess of the lead Action Level of 15 ppb.							
Nitrate (ppm)	10	10	0.66	0.01 - 0.66	NO	2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.18	0.66 - 1.10	NO	2015	Water additive used to control microbes.
Chlorine Dioxide (ppb)	MRDLG = 800	MRDL = 800	340	10 - 340	NO	2015	Water additive used to control microbes.
Volatile Organic Chemicals							
Haloacetic Acids HAA5 (ppb)	No goal for the total	60	62.0*	17.5 - 63.3**	YES	2015	By-product of drinking water chlorination.
Total Trihalomethanes TTHMs (ppb)	No goal for the total	80	74.3	8.4 - 70.9	NO	2015	By-product of drinking water chlorination.
Radioactive Contaminants							
Alpha emitters (picocuries per liter)	0	15	1.4	NA	NO	2010	Erosion of natural deposits.
Radium-228 (picocuries per liter)	0	5 combined	0.12	NA	NO	2010	Erosion of natural deposits.
Unregulated Contaminants							
Bromodichloromethane (ppb)	NA	NA	5.8	NA	NO	2015	By-product of drinking water chlorination.
Chloroform (ppb)	NA	NA	8.0	NA	NO	2015	By-product of drinking water chlorination.
Dibromochloromethane (ppb)	NA	NA	1.8	NA	NO	2015	By-product of drinking water chlorination.

* One of the forty-eight Locational Running Annual Averages was above the MCL for one 3-month period.

** The maximum Range of Detections is not a violation because individual samples are averaged with other samples before being compared with the maximum contaminant level.

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 Akron Water Supply Bureau 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

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.



KNOW YOUR WATER

In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which shall 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 may be obtained by calling the Federal 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. Immunocompromised people such as people with cancer undergoing chemotherapy, people 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 care providers about drinking water. USEPA/Centers for Disease Control and Prevention (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 (800-426-4791).

Three Reasons You Can Count On the Akron Water Supply Bureau for Fresh, Clean Water

1

Watershed Protection

Our experts routinely inspect the water source to help ensure the water supply is clean and safe.

2

Water Treatment

Our certified operating professionals provide an ample supply of high-quality drinking water while striving to exceed all regulatory requirements.

3

24/7 System Maintenance

A skilled team is available days, nights, weekends and holidays to maintain the water mains and reservoirs so you have water when you need it.



Photo: East Branch Reservoir



AKRON WATER SUPPLY BUREAU DRINKING WATER QUALITY REPORT JUNE 2016

DANIEL HARRIGAN, MAYOR, THE CITY OF AKRON

Addendum

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 0.3 NTU in 95% of the daily samples and shall not exceed one NTU at any time. As reported above, the Akron Water Supply's highest recorded turbidity result for 2015 was 0.14 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100% compliance.

HAA Information

The Akron Water Supply had a haloacetic acids (HAA) MCL violation during the months of April, May and June, 2015 at a hydraulically isolated of Akron's water distribution system. The area of the MCL included 2000 customers in Copley, 450 in Bath and 50 in Fairlawn. The sample taken in this isolated area on April 8, 2015 resulted in a Locational Running Annual Average (LRAA) of 62.0 ug/L, compared to the 60 ug/L EPA limit. The area returned to compliance with the sample taken July 8, 2015, with the LRAA dropping back down to 50.0 ug/L.

The immediate actions taken by the Akron Water Supply included collaborating in testing and analysis with the University of Akron to understand the cause of the HAA increase and optimizing the water treatment process to reduce HAA. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.