



ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2018

Presented By

Fayette County
WaterSystem

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply's susceptibility to contamination by the identified potential sources.

According to the SWAP, our water system had a susceptibility rating of moderate. If you would like to review the SWAP, please feel free to contact our office during regular office hours.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Water Committee meets the second and fourth Wednesday of each month beginning at 8 a.m. at the Water System office, 245 McDonough Road, Fayetteville, Georgia. The schedule and minutes from each meeting are posted at www.fayettecountyga.gov under Agendas/Minutes.

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.

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>.



Information on the Internet

The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the Georgia Environmental Protection Division has a Web site (epd.georgia.gov) that provides complete and current information on water issues in Georgia, including valuable information about our watershed.

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.

Lead in Home Plumbing

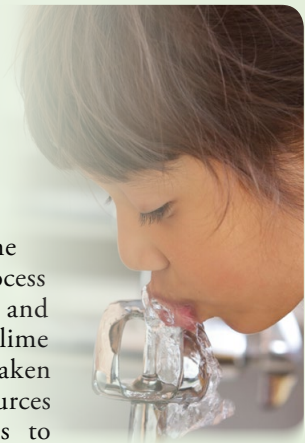
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but 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 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 www.epa.gov/safewater/lead.

Water Treatment Process

The Fayette County Water System has two water treatment plants. Both plants have the ability to add sodium permanganate at the beginning of the treatment process to oxidize iron, manganese, and some organics. Alum and lime are added to the water taken from the surface water sources to cause fine mud particles to clump together so they settle with other particles to the bottom of the settling tanks by gravity. The clear water is collected from the top of the basins, filtered, and disinfected with chlorine to make the water biologically safe. The pH is adjusted by adding lime, and phosphate is added to make the water noncorrosive. Fluoride is added to prevent dental cavities. Treated drinking water is pumped through large pressure pumps to other pumping stations and tanks within the local distribution system. Distribution systems are comprised of large pipes, known as trunk mains, to deliver drinking water. Smaller-diameter branch mains feed individual streets and subdivisions. Service connections to branch mains deliver water to residences. Pumping stations are used to increase pressure and maintain adequate supply flows. Water distributed to elevated water tanks ensures stable water pressure. An adequate supply of water is maintained to meet peak demands and emergencies such as fires, water main breaks, power outages, and pump failures.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call the Fayette County Water System Director at (770) 461-1146.



We remain vigilant in delivering the best-quality drinking water

Where Does My Water Come From?

Fayette County Water System gets its water from several sources. The surface water sources are Lake Kedron, Lake Peachtree, Lake Horton, Lake McIntosh, and the Flint River. Purchased water sources can be the City of Atlanta, City of Fayetteville, and Clayton County Water Authority.

BLENDING OF THE WATER SUPPLY		
SUPPLIER	GALLONS	PERCENT
City of Atlanta	59,952,933	1.5%
Fayetteville	0	0.0%
Clayton County	0	0.0%
Water Plants (2)	3,908,498,000	98.5%
Total	3,968,450,933	100.0%



Copies of the City of Atlanta, City of Fayetteville, and Clayton County Water Authority water quality reports are available upon request.



BY THE NUMBERS

The number of Olympic-sized swimming pools it would take to fill up all of Earth's water.

800
TRILLION

1
CENT

The average cost for about 5 gallons of water supplied to a home in the U.S.

The amount of Earth's water that is salty or otherwise undrinkable, or locked away and unavailable in ice caps and glaciers.

99%

50
GALLONS

The average daily number of gallons of total home water use for each person in the U.S.

The amount of Earth's surface that's covered by water.

71%

330
MILLION

The amount of water on Earth in cubic miles.

The amount of Earth's water that is available for all of humanity's needs.

1%

75%

The amount of the human brain that contains water.

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.

REGULATED SUBSTANCES									
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE		
Chlorine Dioxide (ppb)	2018	[800]	[800]	0.1	0.01–0.21	No	Water additive used to control microbes		
Chlorine (ppm)	2018	[4]	[4]	1.33	0.20–2.60	No	Water additive used to control microbes		
Fluoride (ppm)	2018	4	4	0.79	0.10–0.97	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories		
Chlorite (ppm)	2018	1	0.8	0.67	ND–0.67	No	By-product of drinking water disinfection		
Haloacetic Acids [HAA] (ppb)	2018	60	NA	48.6	13.9–72.0	No	By-product of drinking water disinfection		
TTHMs [Total Trihalomethanes] ¹ (ppb)	2018	80	NA	59.6	12.1–89.0	No	By-product of drinking water disinfection		
Total Organic Carbon ² (removal ratio)	2018	TT	NA	1.20	1.00–1.54	No	Naturally present in the environment		
Turbidity ³ (NTU)	2018	TT	NA	0.26	0.02–0.26	No	Soil runoff		
Turbidity (Lowest monthly percent of samples meeting limit)	2018	TT = 95% of samples meet the limit	NA	99.7	NA	No	Soil runoff		
Tap water samples were collected for lead and copper analyses from sample sites throughout the community ⁴									
				Fayette County Water System			Brooks		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2016	1.3	1.3	0.26	0/30	0.15	0/10	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2016	15	0	2.0	0/30	ND	0/10	No	Corrosion of household plumbing systems; Erosion of natural deposits

¹ Some people who drink water containing trihalomethanes 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 getting cancer.

² TOC compliance is a calculated removal ratio of 1 (actual removal is equal to or greater than the required removal) and is reported for compliance as a running annual average, computed quarterly. 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. For our source water, 35 percent removal is required.

³ Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

⁴ Water from the treatment plants does not contain lead or copper; therefore, water is tested at the tap. Fayette County Water System is on Reduced Monitoring.

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.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

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.

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

2018 CCR Data for Wholesalers of the
Atlanta Water System (WSID# GA1210001)

Information for your CCR from the Chattahoochee WTP, Hemphill WTP, and consecutive system monitoring

2018 Regulated Contaminants monitored at the Treatment Plants

Parameter (units)	MCL	Result	Range of Detections	Represents	Violation
Fluoride (ppm)	4	0.74	0.37 - 0.82	Highest Monthly Average	No
Nitrate as Nitrogen (ppm)	10	0.79	0.52 - 1.1	Yearly Average	No
Total Organic Carbon (ratio)	Treatment Technique	1.27*	1.0 - 1.27	Highest Monthly Ratio	No
Turbidity (NTU)	TT =1 NTU	0.06	0.02-0.50	Highest Monthly Average	No
Turbidity (% of samples <0.3 NTU)	95	100	NA	Lowest Monthly Percentage	No
Chlorine (ppm)	MRDL=4	1.67	1.00 - 1.80	Highest Monthly Average	No

*TOC is a calculated removal ratio

2018 Regulated Contaminants monitored at Customer Taps (including consecutive systems)

Parameter (units)	MCL	Result	Range of Detections	Represents	Violation
Copper (ppm)*	AL= 1.3	0.152	1 of 66	90 th Percentile	No
Lead (ppb)*	AL= 15	6.1	6 of 66	90 th Percentile	No

*Triennial Monitoring

2018 Unregulated Contaminants monitored at the Treatment Plants

Parameter (units)	MCL	Result	Range of Detections	Represents	Violation
Quinoline (ug/L)	Not regulated	0.046	0.026-0.046	Highest Detected	No
Manganese (ug/L)	Not regulated	1.18	0.445-1.18	Highest Detected	No

2018 Unregulated Contaminants monitored at the source

Parameter (units)	MCL	Result	Range of Detections	Represents	Violation
Bromide (ug/L)	Not regulated	32.6	21.2-32.6	Highest Detected	No

Atlanta Water System (WSID# GA1210001)

2018 Regulated Contaminants monitored in the Distribution System

Parameter (units)	MCL	Result	Range of Detections	Represents	Violation
Total Trihalomethanes (ppb)	80	78	29-78	Highest Quarterly LRAA	No
Haloacetic Acids (ppb)	60	61	19-61	Highest Quarterly LRAA	Yes
Total Coliform (% of Samples)	5	1.9	NA	Highest Monthly Percentage	No