

Presented By

Fayette County
WaterSystem



ANNUAL
WATER
QUALITY
REPORT

WATER TESTING PERFORMED IN 2016

From the Director's Desk

Let me thank you all for being loyal Fayette County Water System customers. We all know, water is vital to the success of our community. During 2016, our Water System has continued to tackle new challenges in an effort to provide safe drinking water to our customers. We have taken a vow to produce water that not only meets requirements but will exceed all areas of compliance. In recent years, the system has struggled with compliance in the areas of Trihalomethane and Haloacetic acid (THM/HAA) results in a large part of the distribution system. By improving the technology to effectively target possible contaminants in the raw water, we can produce an excellent quality of water here in Fayette County. During the last year, we have made major improvements at our water treatment plants to continue providing exceptional water quality. We have spent the majority of our resources to improve the operations equipment at each plant. This allows our operators to work in a safer environment while having dependable and more efficient tools to produce our drinking water. In the future year, we will finalize the chemical feed equipment and overall operations at each water treatment plant. We will first also develop a working hydraulic model of our distribution system. This will help identify water quality and age issues within the distribution system.. We are currently addressing the suspect areas we are aware of and will develop a plan to address water quality throughout the distribution system as we continue to move forward.

Please take the time to review our 2016 accomplishments to improve our service to you:

- Received Gold Award at South Fayette WTP and Crosstown WTP for 100% Compliance.
- Received Best Tasting Water for District 3 Facilities.
- Received Peoples' Choice Award for the State of Georgia.
- Staff has assisted middle and high school students in 3 science projects including hosting the first annual Model Water Tower Competition sponsored by the GAWP.
- The Water System was successful in the completion of EPD's sanitary survey.
- Fayette County Water System now has Facebook page in which we schedule Tuesday Tips and "Did You Know" posts regularly.
- Utilize new automatic flushers for water quality improvements.
- Implemented new procedure for testing Chlorine Dioxide and Chlorite at South Fayette WTP.
- Incorporated Liquid Lime Slurry into our treatment process at South Fayette WTP.
- Submitted and Obtained a Risk Management Plan for Chlorine at South Fayette WTP.
- New filter operations, liquid lime, carbon and permanganate systems at Crosstown WTP.
- Completed rehabilitation of all 8 filters at Crosstown
- Completed security improvement and camera installation at both water treatment plants.
- Maintenance staff has worked continuously on preventative and corrective projects at both water plants. Completed tasks normally contracted to outside sources for a savings of up to \$2,000.00 each.
- Implemented and continue to enroll customers into Citizen Self Service.
- The Water System saved a total of \$17,085.00 in postage for annual year 2016.
- Completed Coastline Road – 4,400' of infrastructure installed to close gap. Final phase will eliminate the need to purchase Atlanta water for residents in north Fayette.
- A total of 14 Contractor Projects have been completed.
- Assisted with all necessary requirements to design and bid Castle Lake Subdivision replacement.
- Partnered with Wachs to completed water line condition and valve assessments with Brooks and Tyrone.

Please be patient as we continue to take the necessary steps to improve your water systems quality and efficiency. Feel free to contact us with any questions as we chart the course to take care of your demands today and tomorrow.

At Fayette County Water System, while many may use social media to reach out for help, we are always waiting to hear from you so we can immediately offer our expertise and help to make you a happy customer.

Please remember

"Memorable Customer Service Can Only Take Place in A Human-to-Human situation"

—Jeffrey Gitomer

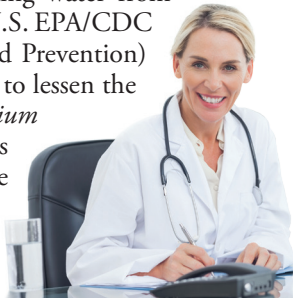
Lee Pope, Director
Fayette County Water System

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Water Committee meets the 2nd and 4th Wednesdays of each month beginning at 8 a.m. at the Water System Office, 245 McDonough Road, Fayetteville, GA 30214. The schedule and minutes from each meeting are posted at www.fayettecountyga.gov under Agendas/Minutes.

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

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 "medium." If you would like to review SWAP, please feel free to contact our office during regular office hours.

QUESTIONS?

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

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (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.

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 the finely divided 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 non-corrosive. Fluoride is added to prevent dental cavities.



What type of container is best for storing water?

Consumer Reports has consistently advised that glass or BPA-free plastics such as polyethylene are the safest choices. To be on the safe side, do not use any container with markings on the recycle symbol showing “7 PC” (code for BPA). You could also consider using stainless steel or aluminum with BPA-free liners.

How much emergency water should I keep?

Typically, 1 gallon per person per day is recommended. For a family of four, that would be 12 gallons for 3 days. Humans can survive without food for 1 month, but can only survive 1 week without water.

How long can I store drinking water?

The disinfectant in drinking water will eventually dissipate, even in a closed container. If that container housed bacteria prior to filling up with the tap water, the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

How long does it take a water supplier to produce one glass of drinking water?

It could take up to 45 minutes to produce a single glass of drinking water.

Unregulated Contaminant Monitoring

We participated in the 3rd stage of the U.S. EPA’s Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

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 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 or at <https://www.epa.gov/lead>.

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. The purchase water sources can be the City of Atlanta, City of Fayetteville, and Clayton County Water Authority.

Fayette County Water System also manages the Town of Brooks water system; please refer to the Test Results section for water testing information.

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.

Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; 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.

During the summer of 2016, we exceeded the MCL for Haloacetic Acids (HAAs) at one sample location. When the high number was reported, we immediately altered our operations and brought the level back into compliance. Due to this short time period there are no adverse health effects expected. We have made changes in the distribution system to mitigate the problem and we are continuing to monitor this site more closely. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. For a person to experience any possible health issues, they would need to consume water with this exceedance for many years.

During this same period, we did not properly report this incident. We have already taken the steps to ensure that adequate monitoring and reporting will be performed in the future so that this oversight will not be repeated.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine Dioxide (ppb)	2016	[800]	[800]	90	20–780	No	Water additive used to control microbes
Chlorine (ppm)	2016	[4]	[4]	1.32	0.20–2.90	No	Water additive used to control microbes
Chlorite (ppm)	2016	1	0.8	0.57	0.0–0.74	No	By-product of drinking water disinfection
Fluoride (ppm)	2016	4	4	0.77	0.12–1.20	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA]–Sample Site #508 64.3 (ppb)	2016	60	NA	64.3	15.0–99	Yes	By-product of drinking water disinfection
Nitrate (ppm)	2016	10	10	ND	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	62.6	13.0–117	No	By-product of drinking water disinfection
Total Organic Carbon (removal ratio)	2016	TT	NA	1.17 ¹	1.05–1.50	No	Naturally present in the environment
Turbidity ² (NTU)	2016	TT	NA	0.29	0.01–0.29	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2016	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Fayette County Water System				Town of Brooks Water System				VIOLATION	TYPICAL SOURCE
		AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/TOTAL SITES				
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	0	0/10	No	Corrosion of household plumbing systems; Erosion of natural deposits		

UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chlorate (ppb)	2013	191	93–280	Disinfection byproduct and used in production of chlorine dioxide
Chromium [Total] (ppb)	2013	0.33	0.26–0.48	See chromium-6 for use or source information
Chromium-6 (ppb)	2013	0.16	0.08–0.28	Naturally occurring element
Strontium (ppb)	2013	37	28–47	Naturally occurring element
Vanadium (ppb)	2013	1.0	0.41–7.4	Naturally occurring elemental metal

¹ 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. For our source water, 35% removal is required. At South Fayette Water Treatment Plant the amount detected was 1.15.

² 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.

³ 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

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 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.