

Water Quality Report

2021

Safe water is vital to our community. Please read this report carefully, and if you have questions, please call our customer service department at 770.222.6868.

Paulding County Water System

The Paulding County Water System has prepared this annual report to inform and educate our consumers on the quality of water delivered to their community. Our continuing commitment to our community is to provide reliable service and safe drinking water that meets or exceeds the state and federal standards. The Paulding County Water System supplies an average of 13.5 million gallons of water daily to more than 52,700 customers through a 1,000 mile distribution system.

The data presented in this report is from the most recent testing performed in accordance with applicable regulations. This report meets the Federal Safe Drinking Water Act (SDWA) requirements of "Consumer Confidence Reports" and contains information on the source of our water, its constituents, and the health risks associated with contaminants.

Water Source

Paulding County Water System's (PCWS) primary source of water is Richland Creek Reservoir. Water in the reservoir is pumped from the Etowah River and is supplemented with flows from Richland Creek. The Richland Creek Water Treatment Plant uses coagulation, flocculation, dissolved air floatation and filtration to treat the raw water. Granulated activated carbon is used to further treat the water when needed.

Paulding County also purchases treated water from the Cobb County- Marietta Water Authority (CCMWA). The CCMWA has two (2) surface water sources supplying two treatment facilities. The Wyckoff Treatment Division is supplied from Lake Allatoona, a Corps of Engineers impoundment in north Cobb, south Cherokee and south Bartow Counties. The Quarles Treatment Division withdraws water from the Chattahoochee River.

Both PCWS and CCMWA sources have Source Water Assessment (SWA) itemizing potential sources of water pollution to our surface drinking water supplies. This information can help you understand the potential for contamination of your drinking water supplies and can be used to prioritize the need for protecting drinking water sources.

A copy of Paulding County's Richland Creek SWA is posted at:

<https://ga-pauldingcounty.civicplus.com/DocumentCenter/View/11625/RCR-SWAP-Paulding-Final-2018>

A copy of the SWA addressing CCMWA's sources is posted at:

<https://northgeorgiawater.org/conserves-our-water/water-supply-in-our-region/>



Paulding County Water System business office is open weekdays, except for holidays.

Lobby Hours 8 AM – 4:45 PM
3844 Atlanta Hwy | Hiram, GA 30141
(770) 222-6868 | paulding.gov



WATER QUALITY DATA TABLE

Inorganic Contaminants

Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources	Violation
Fluoride ¹	2021	ppm	4	4	1.02	0.59 – 1.02	Erosion of natural deposits; water additive which promotes strong teeth	NO
Lead ²	2020	ppb	AL =15	0	2.0	n/a	Corrosion of household plumbing systems.	NO
Copper ³	2020	ppm	AL =1.3	0	0.040	n/a	Corrosion of household plumbing systems.	NO
Nitrate/Nitrite ⁴	2021	ppm	10	10	.74	n/d - .74	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	NO

Notes:

¹Fluoride is added to water to help in the prevention of dental cavities (caries) in children.

²The next round of testing is due in 2022.

³The next round of testing is due in 2022.

⁴Nitrate and Nitrite are measured together as N.

Disinfection By-Products, By-Product Precursors and Disinfectant Residuals

Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources	Violation
TTHMs (Total Trihalomethanes)	2021	ppb	80	0	66.7	32 – 77.3	By-products of drinking water disinfection	NO
Stage 2					Highest LRAA at site 503 & 504			
HAA5s (Haloacetic Acids) Stage 2	2021	ppb	60	0	35.9	19.8 – 51.8	By-products of drinking water disinfection	NO
					Highest LRAA at site 504			
TOC (Total Organic Carbon)	2021	ppm	TT	n/a	2.0	0.9 – 2.0	Decay of organic matter in the water withdrawn from sources such as lakes and streams	NO
Chlorite	2021	ppm	1.0	0.8	0.42	0.041 – 0.42	Byproduct of drinking water disinfection	NO
Chlorine _{Free}	2021	ppm	MRDL = 4	MRDLG = 4	2.22	0.00– 2.22	Drinking water disinfectant	NO

Note:

¹The highest detected LRAA (Locational Running Annual Average).

Turbidity

Contaminant	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical source
Turbidity ³	TT = 1 NTU	0	0.14	n/a	2021	NO	Soil runoff
	TT = percentage of samples <0.3 NTU		100%	n/a			

Note:

³Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

Microbiological Contaminants

Contaminant	MCL	MCLG	TT Level 1 Assessment Trigger	Level Detected	Sample Dates	Violation	Likely Source
Total Coliform	TT	n/a	Exceeds 5.0% TC+ samples in a month	2.75%	All Year	No	Naturally present in the environment
E. coli	One Positive Sample*	0	n/a	0.92%	All Year	No	Human or animal fecal waste

* A PWS will receive an E. coli MCL violation when there is any combination of an EC+ sample result with a routine/repeat TC+ or EC+ sample result

Explanation of Data Table

The tables show the results of our water quality analyses. These water quality analyses are representatives of all sources. Every contaminant regulated by EPA that was detected in the water, even at trace levels, 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 usual sources of such contamination, footnotes explaining our finding, and a key to units of measurement. Definitions of MCL, MCLG, AL, and TT are important:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

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

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

Maximum Residual Disinfectant Level (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 microbiological contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a 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.

Key to Table

AL – Action Level	ppm – parts per million or milligrams per liter (mg/L)
MCL – Maximum Contaminant Level	ppb – parts per billion or micrograms per liter (µg/L)
MCLG – Maximum Contaminant Level Goal:	ng/l – Nanograms per liter
NTU – Nephelometric Turbidity Unit	TT – Treatment Technique
MRDL – Maximum Residual Disinfectant Level	n/a – not applicable
MRDLG – Maximum Residual Disinfectant Level Goal	n/d – not detected
	BDL – Below Detection Limits

Paulding County 2021 Microbiological Results

Month	Number of coliform-positive samples	Number of samples collected	% Total coliform-positive samples	Number of E. coli-positive samples	Number of samples collected	% E. coli-positive samples	Violation
Jan-21	0	100	0.00%	0	100	0.00%	NO
Feb-21	0	100	0.00%	0	100	0.00%	NO
Mar-21	0	100	0.00%	0	100	0.00%	NO
Apr-21	0	100	0.00%	0	100	0.00%	NO
May-21	0	100	0.00%	0	100	0.00%	NO
Jun-21	0	100	0.00%	0	100	0.00%	NO
Jul-21	0	100	0.00%	0	100	0.00%	NO
Aug-21	0	100	0.00%	0	100	0.00%	NO
Sep-21	3	109	2.75%	1	109	0.92%	NO
Oct-21	0	100	0.00%	0	100	0.00%	NO
Nov-21	0	100	0.00%	0	100	0.00%	NO
Dec-21	1	103	0.97%	0	103	0.00%	NO
	Highest detected total coliform level		2.75%	Highest detected E. coli level		0.92%	NO

UNREGULATED CONTAMINANTS TESTED BY CCMWA

Unregulated Contaminants PFAS	Date of Test 8/5/21 Quarles WTP ng/L	Date of Test 4/6/21 Wyckoff WTP ng/L	No Maximum Limit MCL By EPA	Aesthetic Standards SMCL pCi/L	EPA Limit Met by CCMWA?	Sources of Contaminant in Drinking Water	Frequency of Test
Perfluorooctanoic acid (PFOA)1	2.4	Not detected	n/a	No EPA Limit	n/a	PFOAs come from a wide range of consumer products, stain-resistant carpet, water-repellent clothes, paper and cardboard packaging, ski wax, and foams used to fight fires. PFOA is also created when other chemicals break down.	No requirement
Perfluorooctanesulfonic acid (PFOS)1	2.3	Not detected	n/a	No EPA Limit	n/a	PFOA can still be found in older consumer products in which it was used before phase-out. PFOA is used in household goods including non-stick coatings like Gore-Tex or cookware (think Teflon), or in carpet and furniture that have been treated to be stain resistant.	No requirement
Perfluorobutanesulfonic acid (PFBS)2	2.2	Not detected	n/a	No EPA Limit	n/a	PFBS is the replacement chemical for Scotchguard water repellant. It has been used as a surfactant in industrial processes and in water-resistant or stain-resistant coatings on consumer products such as fabrics, carpets, and paper.	No requirement
Perfluoroheptanoic acid (PFHpA)	Not detected	Not detected	n/a	No EPA Limit	n/a	Breakdown product of stain- and grease-proof coatings on food packaging, couches, carpets. A 7-carbon version of PFOA	No requirement
Perfluorohexanesulfonic acid (PFHxS)	Not detected	Not detected	n/a	No EPA Limit	n/a	Sources include firefighting foams, textile coating, metal plating and in polishing agents	No requirement
Perfluorononanoic acid (PFNA)	Not detected	Not detected	n/a	No EPA Limit	n/a	PFNA is used as surfactant for the production of the fluoropolymer polyvinylidene fluoride	No requirement
Perfluorodecanoic acid (PFDA)	Not detected	Not detected	n/a	No EPA Limit	n/a	PFDA is a fluorosurfactant and has been used in industry, with applications as wetting agent and flame retardant.	No requirement
Perfluorohexanoic acid (PFHxA)3	3.4	Not detected	n/a	No EPA Limit	n/a	PFHxA is breakdown product of stain- and grease-proof coatings on food packaging and household products.	No requirement
Perfluorododecanoic acid (PFDoA)	Not detected	Not detected	n/a	No EPA Limit	n/a	PFDoA is a product of stain- and grease-proof coatings on food packaging, soft furnishings and carpets.	No requirement
Perfluorotridecanoic acid (PFTrDA)	Not detected	Not detected	n/a	No EPA Limit	n/a	PFTrDA is a product of stain- and grease-proof coatings on food packaging, soft furnishings and carpets.	No requirement
Perfluoroundecanoic acid (PFUnA)	Not detected	Not detected	n/a	No EPA Limit	n/a	PFUnA is a product of stain- and grease-proof coatings on food packaging, soft furnishings and carpets.	No requirement
N-ethyl Perfluorooctanesulfonamidoacetic acid	Not detected	Not detected	n/a	No EPA Limit	n/a	Sources include stain- and grease-proof coatings on food packaging, soft furnishings and carpets.	No requirement
N-methyl Perfluorooctanesulfonamidoacetic acid	Not detected	Not detected	n/a	No EPA Limit	n/a	Sources include stain- and grease-proof coatings on food packaging, soft furnishings and carpets.	No requirement
HFPO-DA/GenX	Not detected	Not detected	n/a	No EPA Limit	n/a	Sources include food packaging, paints, cleaning products, non-stick coatings, outdoor fabrics and firefighting foam.	No requirement

4,8-dioxia-3H-perflouronanoic acid (ADONA)	Not detected	Not detected	n/a	No EPA Limit	n/a	Sources include food packaging, paints, cleaning products, non-stick coatings, outdoor fabrics and firefighting foam.	No requirement
9CI-PF3ONS/F-53B Major	Not detected	Not detected	n/a	No EPA Limit	n/a	Sources include food packaging, paints, cleaning products, non-stick coatings, outdoor fabrics and firefighting foam.	No requirement
11CI-PF3OUdS/F-53B Minor	Not detected	Not detected	n/a	No EPA Limit	n/a	Sources include food packaging, paints, cleaning products, non-stick coatings, outdoor fabrics and firefighting foam.	No requirement
Perfluorotetradecanoic acid (PFTeDA)	Not detected	Not detected	n/a	No EPA Limit	n/a	Sources include food packaging, paints, cleaning products, non-stick coatings, outdoor fabrics and firefighting foam.	No requirement
1PFOA and PFOS- The EPA only has health advisories for PFOA and PFOS, which are 70 ppt (ng/L). This is combined or individual. The detects for these compounds for Quarles were 2.4 and 2.3 ng/L respectively. Well below the health advisory level.							
2PFHxA- The State of Illinois has a health advisory for PFHxA, while EPA does not. The Illinois health advisory is 560,000 ppt (ng/L). The detected amount for Quarles was 3.4 ng/L.							
3PFBS- The State of Illinois has a health advisory for PFBS, while EPA does not. The Illinois health advisory is 2,100 ppt (ng/L). The detected amount for Quarles was 2.2 ng/L.							



Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

The monitoring of CCMWA source water performed in 2013 had **no detection** of cryptosporidium. Testing was only required for a period of nine months in 2013.



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 people, and infants can be particularly at risk. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the EPA's ***Safe Drinking Water Hotline at 1.800.426.4791.***

Additional Health Information






To ensure tap water is safe to drink, EPA (Environmental Protection Agency) prescribes limits on the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (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 EPA's ***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. **Paulding County Water System** 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 or at <http://www.epa.gov/safewater/lead>.

Examples of Water Contaminants:

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 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:

-  Microbial contaminants such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
-  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.
-  Pesticides and herbicides which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
-  Organic chemical contaminants, including synthetic (man-made) and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff, and septic systems.
-  Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.