

ANNUAL WATER QUALITY REPORT 2016

Water Testing Performed in 2016



In 2016, the City of Gainesville Department of Water Resources conducted over 2,700 laboratory tests for more than 100 drinking water parameters. This report includes information about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Your public utilities department is committed to providing the community with clean, safe, and reliable drinking water. The tables below list all the drinking water contaminants that we detected during the 2016 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2016. **EPD** requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, may be more than one year old.

Microbiological Contaminants Table

Parameter	MCL	MCLG	Gainesville Water System	Violation	Typical Source of Contaminant
Total Coliform Bacteria	No more than 5% of monthly samples can test positive for coliform bacteria	0	0% (Highest Monthly Positives)	NO	Naturally present in the environment

Disinfectants Table

Parameter	MRDL	MRDLG	Gainesville Water System	Range of Violation	Typical Source of Contaminant	
Chlorine (ppm)	4.0	4.0	1.02	0 – 1.85	NO	Water additive used to control microbes

Inorganic Contaminants Table

Parameter	MCL	MCLG	Gainesville Water System	Range of Violation	Typical Source of Contaminant	
Fluoride (ppm)	4.0	4.0	.77	0.67 – .96	NO	Water additive which promotes strong teeth
Nitrate/Nitrite (ppm)	10	10	0.41	0.34 – 0.53	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Organic Contaminants Table

Parameter	MCL	MCLG	Gainesville Water System	Range of Violation	Typical Source of Contaminant	
Total Trihalomethanes (TTHMs) (ppb)	80	n/a	0.032*	0.017 – 0.046	NO	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	60	n/a	0.015*	0.012 – 0.017	NO	By-product of drinking water disinfection
Chlorite (ppm)	1	0.8	0.268	0.055 – 0.480	NO	By-product of drinking water chlorination
Total Organic Carbon (TOC) (ppm)	TT	n/a	.86	0.59 – 1.1	NO	Naturally present in the environment

* This number represents the highest locational running annual averages reported during 2016.

Lead and Copper Contaminant Table

Parameter	AL	MCLG	90 th percentile value	# of sites above the AL	Typical Source of Contaminant
Copper (ppm)	1.3	1.3	0.028	No (0) sites above the AL out of 50 sites sampled.	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	15	0	0.0044	No (0) sites above the AL out of 50 sites sampled.	Corrosion of household plumbing systems; Erosion of natural deposits

2015 Data, No Sampling Required this reporting Period

Turbidity Table

Parameter	MCL	MCLG	Result	Range of Violation	Typical Source of Contaminant	
Turbidity (NTU)	TT = <0.3	0	0.058	0.01 – 0.20	NO	Soil runoff and erosion
Turbidity (NTU)	TT = percentage of samples <0.3 NTU	n/a	100%	n/a	NO	

Turbidity is a measure of the cloudiness of water. We monitor turbidity to indicate the effectiveness of our filtration system.

Gainesville's Annual Average Hardness – 24 ppm

Gainesville's Annual Average Alkalinity – 15 ppm

Unregulated Contaminants Table

Parameter	MCL	MCLG	Gainesville Water System	Range of Violation	Typical Source of Contaminant	
Chloroform (ppb)	n/a	n/a	7.25	5.9 – 8.6	NO	By-product of drinking water chlorination process
Dichlorobromomethane (ppb)	n/a	n/a	2.55	2.0 – 3.1	NO	By-product of drinking water chlorination process
Chlorodibromomethane (ppb)	n/a	n/a	.45	0 – .9	NO	By-product of drinking water chlorination process
Monochloroacetic Acid (ppb)	n/a	n/a	0	0 – 0	NO	By-product of drinking water chlorination process

Contaminants that may be present in source water-before "TREATMENT" include:

In order to ensure that tap water is safe to drink, 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 must provide the same protection for public health. 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 animals or from human activity.

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 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 can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Terms & Abbreviations used below:

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

Environmental Protection Agency (EPA): the United States Environmental Protection Agency.

Environmental Protection Division (EPD): the Georgia Department of Natural Resources Environmental Protection Division.

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 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 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 microbial 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Treatment Technique (TT): a required process intended to reduce the level of a contaminant in drinking water. **n/a:** not applicable – **nd:** not detectable at testing limit – **ppb:** parts per billion or micrograms per liter – **ppm:** parts per million or milligrams per liter – **NTU:** nephelometric turbidity units, measurement of suspended material in water.

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, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. 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: (1-800- 426-4791).





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The City of Gainesville Department of Water Resources provides water to residential, commercial and industrial customers located within the Gainesville corporate limits, a large portion of unincorporated Hall County and within the corporate limits of the cities of Clermont, Buford, Oakwood, Braselton, Flowery Branch and Gillsville. The Gainesville service area covers approximately 500 square miles. The water system serves a customer base of approximately 53,000 accounts with an estimated 159,000+ users. We welcome your comments and participation on issues that concern our drinking water. Linda MacGregor, Department of Water Resources Director, may be reached at (770) 538-2400. Don Dye, Assistant Director of Department of Water Resources, may be reached at (770) 538-2462.

The information contained in this report summarizes your drinking water for calendar year 2016. This information is provided on or before June 1. If you are interested in getting more information about your water quality or this report, please call Horace Gee, Environmental Services Manager at (770) 532-7462.

The Department of Water Resources is actively involved in protection of our local water resources and works with various state, federal and local agencies on Watershed Protection issues. In 2003, our community completed a source water assessment. The overall point source susceptibility ratings for both of Gainesville's plants are low.

Promoting Water Efficiency and Providing Opportunities to Save

Only 3% of the total amount of water on Earth is fresh water. Of that 3%, only a small fraction is available for human use. Your Department of Water Resources is dedicated to being a good steward and offering opportunities to customers and citizens alike in an effort to conserve and protect this valuable resource.

Drought in the Lake Lanier Basin



Lake Sydney Lanier is Gainesville's water source. Approximately 4 million people receive water from Lake Lanier and the Chattahoochee River.

Use these water saving tips and others to conserve:

-  Reuse dish-washing water and condensation to irrigate your plants.
-  Reuse the same drinking glass throughout the day.
-  Mulch closely around the base of your plants to hold in moisture.
-  Collect the water from the faucet as the water is heating up and put it in the fridge for later.

As lake levels fluctuate from annual rainfall, know your allowable watering schedule.

Here to Help You

Year round, we offer our customers many ways to save, including: free conservation kits, water assessments, workshops and our toilet rebate program. Contact us today!



Rain Barrel Program

We partner with Keep Hall Beautiful making cost-efficient rain barrels that are available to everyone!

Water Restrictions Are In Effect

Do you know the most up to date watering restrictions in your area? For current water restrictions and conservation tips and tricks, visit our website:

www.gainesville.org/water-resources



Reducing Runoff Saves Water and Prevents Pollution

Saving water and reducing pollution does not have to be complicated. Simply routing your downspouts to your garden will reduce the amount of supplemental water that your plants require. There are also many options of green infrastructure that you can install. Green infrastructure refers to different elements that reduce runoff and allow water to soak into the ground. Stormwater (rain) carries with it pollutants such as nitrogen and phosphorous from fertilizers as well as trash and other debris. 80% of all the pollution in our streams and the lake is from stormwater runoff. There are great examples around town of green infrastructure. A few of them are highlighted below and can be used to enhance any property. There are many resources available online for more information.



Rain Gardens and Bioswales

These attractive enhanced pocket gardens take advantage of low spots and add color and interest to any landscape. A demonstration garden can be found at Linwood Nature Preserve.



Cisterns and Rain Barrels

Rainwater harvesting allows flexibility in when you can water your plants. They can be connected to your downspouts or placed underground to collect water. The Wilheit-Keys Peace Garden at NEGMC combines a permeable sidewalk with cisterns to water the garden.

Permeable Parking and Sidewalks

If you need to replace your driveway, add parking or fix a walkway, consider making it permeable. This will allow water to filter into the ground. There are numerous different types of materials that you can use choose from.



Midtown Greenway Parking



Botanical Gardens in Gainesville



Rock Creek Greenway Parking

For more information, visit us at www.gainesville.org/water-resources or call 770-532-7462.

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