Annual Water Quality Report

Monitoring Performed January - December 2020

Butts County, et al. Water & Sewer Authority/City of Jackson/City of Jenkinsburg
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As partners in water supply, we at the Butts County Water & Sewer Authority, City of Jackson, and City of Jenkinsburg are working twenty-four hours a day to deliver high-quality water to our customers. Whether it is making sure that enough water is available when supply is low, or ensuring adequate pressure levels for fire protection and your morning shower, our staff members understand how critical water is to daily life.

All of our testing is done in conjunction with the Georgia Environmental Protection Division (EPD) and the U.S. Environmental Protection Agency (EPA) and confirms to schedules set by federal regulation. We are glad to report that with the thousands of samples taken throughout the year, there were NO violations of State or Federal Requirements.

We appreciate the opportunity to serve you. For questions, to arrange a plant tour, or for more information, contact Herbert L. Head, Water Production Superintendent, at (770) 775-2827 or hhead@buttswsa.com

Where Does My Water Come From?

We have a blended surface water supply from the Ocmulgee and Towaliga Rivers. Both rivers are a part of the Upper Ocmulgee watershed. Combined, our treatment facilities provide roughly 800 million gallons of clean drinking water every year.

The headwaters of the Ocmulgee basin are located in DeKalb and Gwinnett Counties and consist of the Alcovy, Yellow, and South Rivers, which drain the eastern and southeastern metropolitan Atlanta region. These rivers join at Jackson Lake. The Authority's intake is located near where the Ocmulgee River flows out of Jackson Lake dam in east Butts County. Water from the Ocmulgee River is treated at the Emerson L. Burford plant. This plant has a capacity of 4.0 million gallons per day. It is owned and operated by the Butts County Water & Sewer Authority and provides 90% of the water used in system overall.

The Towaliga Watershed is located within the larger Upper Ocmulgee watershed. The Towaliga River forms from smaller streams in southern Henry County and eastern Spalding County. This watershed has been impounded in several areas upstream from Jackson's intake for Henry County's water supply. The City of Jackson's intake is on the Towaliga in west Butts County. Water from the Towaliga River is treated at the Gerald L. "Buck" Stewart plant. This plant has a capacity of 1.0 million gallons per day. It is owned by the City of Jackson and operated by the Butts County Water & Sewer Authority.

Customers in the far southwest corner of Butts County on Chappell Mill Road, Fenner Road, and in the Brushy Creek subdivision receive their water supply through a purchase from the City of Griffin.

Monitoring Schedule

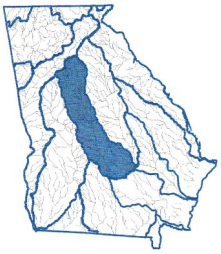
We routinely monitors for contaminants in your drinking water according to a schedule determined by Federal and State regulations. The EPD allows monitoring of some contaminants less than once per year because the concentrations of these contaminants do not change frequently. This table shows the most recent year of monitoring for these contaminant groups.

Constituent Monitored	Date Monitored
Inorganic Contaminants	2020
Lead/Copper	2019
Microbiological Contaminants	Monthly
Nitrates	2020
Radioactive Contaminants	2020
Volatile Organic Contaminants	2020
Disinfection By-products	Quarterly

Variances and Exemptions

The Georgia EPD has issued our system a waiver for monitoring for synthetic organic contaminants, asbestos, and cyanide because the source is not at risk for contamination.

Source Water Assessment


Ocmulgee River Basin

Georgia's Source Water Assessment Program is aimed at protecting public drinking water supplies at the source - the rivers, lakes and streams all across Georgia. As part of this program, a source water assessment has been done for both our intakes on the Ocmulgee and Towaliga Rivers.

The Upper Ocmulgee River Basin has a large degree of urban activity from the metropolitan Atlanta area. While our watershed profile has identified a number of potential pollution sources to the north, it rates susceptibility of the Ocmulgee intake as "Low", due to the distance of intakes from potential pollution sites and the minimum likelihood of significant releases from those identified pollution sources. Copies of the Source Water Assessments are available for public review at the Authority's office at 100 West Second Street in Jackson.

The Authority has also developed a detailed Watershed Assessment and Plan for the Towaliga Basin because we have a wastewater treatment facility in that basin. We continue to test waters in the Towaliga River, Cabin Creek, and Brushy Creek to monitor for quality changes that may take place due to development in this basin.

We encourage our customers to become active in protecting the Ocmulgee River, the Towaliga River, and other local waterways by participating with groups in our area such as the Jackson Lake Association, the South River Watershed Alliance, the Altamaha Riverkeeper, and the Georgia River Network.

Lead and Copper Monitoring

Monitoring requirements for lead and copper were completed in 2019. Thirty sites were sampled without exceeding the Action Limit for either Lead or Copper. The system will continue to monitor for lead and copper every three years. The next monitoring period for the system will be the period of June - September 2022.

Our monitoring results in 2019 were as follows:

	MCL	90th Percentile Sample	Range of Levels
Lead	AL = 15	1.4 ppb	ND - 2.8
Copper	AL = 1.3	0.195 ppm	ND - .235

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Our water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. These recommended actions are very important to the health of your family:

- Use *only* water from the cold-water tap for drinking, cooking, and *especially for making baby formula*. Hot water is likely to contain higher levels of lead.
- 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.

Lead levels in your drinking water are likely to be higher if:

- Your home or water system has lead pipes, or
- Your home has faucets or fittings made of brass which contains some lead, or
- Your home has copper pipes with lead solder and you have naturally soft water, and
- Water often sits in the pipes for several hours.

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/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

During the past year we have taken thousands of water samples in order to determine the presence of any primary, secondary, or unregulated contaminants. The water quality information presented in the table below is from the most recent monitoring period unless otherwise noted and it only includes those contaminants that were detected in the water.

Table of Detected Contaminants

Primary Standards - Mandatory standards set by the Safe Drinking Water Act used to protect public health. These apply to all public water systems.

Microbiological Contaminants	MCL, TT, or MRDL *(What's Allowed?)*	MCLG *(What's the Goal?)*	Range Low - High (MD)	Violation	Major Sources
Total Coliform	NA	TT	1 positive sample †	No	Naturally present in the environment
† There was one positive coliform sample in July 2020. All follow up testing was Absent (negative). The presence of coliform bacteria in the sample was not a compliance violation. These are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.					
Turbidity	TT	0	.01 - 1	No	Soil Runoff
Total Organic Carbon (ppm)	TT	NA	1.29 - 5.98	No	Naturally present in the environment

Inorganic Contaminants	MCL, TT, or MRDL *(What's Allowed?)*	MCLG *(What's the Goal?)*	Range Low - High (MD)	Violation	Major Sources
Antimony (ppb)	6	6	ND - 0.15	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium (ppm)	2	2	0.0178 - 0.0218	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper - source water (ppm)	AL = 1.3	1.3	.0357 - 0.0054	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Copper - action level at consumer taps (ppm)	AL = 1.3	1.3	ND - .235 (2019)	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Fluoride (ppm)	4	4	1.08	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead - action level at consumer taps (ppb)	AL = 15	0	ND - 2.8 (2019)	No	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate [measured as Nitrogen] NO3 (ppm)	10	10	01.48 - 0.576	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfectants & Disinfection By-Products	MCL, TT, or MRDL *(What's Allowed?)*	MCLG *(What's the Goal?)*	Range Low - High (MD)	City of Griffin	Violation	Major Sources
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)						
Chlorine (ppm)	4	4	1	1.93	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	MRDL = 800	MRDLG = 800	ND	120	No	Water additive used to control microbes
Chlorite (ppm)	1	0.8	ND	0.67	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	60	0	LRAA Range 22.2 - 61.1	38	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	80	0	LRAA Range 41.6 - 94.1	59	No	By-product of drinking water disinfection

Secondary Standards - Non Mandatory standards established as a guideline to assure good aesthetic qualities such as taste, color, and odor.

Contaminant	MCL	Maximum Detected	Contaminant	MCL	Maximum Detected	Contaminant	MCL	Maximum Detected
Aluminum (ppm)	0.05 to 0.2	1.4	Total Dissolved Solids (ppm)	500	128	Hardness (ppm)	NA	22.4
Chloride (ppm)	250	11.5	Zinc (ppm)	5	0.0068	Magnesium (ppm)	NA	2.05
Fluoride (ppm)	2.0	1.08	Alkalinity, Total (as CA, Co_3) (ppm)	NA	42.6	Nickel (ppb)	NA	0.82
Manganese (ppm)	0.05	0.0243	Calcium, as Ca (ppm)	NA	7.39	Sodium (ppm)	NA	27.8
pH (std units)	6.5 - 8.5	7.0	Carbon Dioxide (ppm)	NA	37.5	Conductivity (umhos)	NA	176
Sulfate (ppm)	250	16.1						

Unregulated Contaminants	Range	
	Low	High (MD)
Bromodichloromethane (ppb)	ND	13.6
Chloroform (ppb)	ND	78.5
Dibromochloromethane (ppb)	ND	3.15

General Information

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCL's, defined in a List of Definitions in this report, are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. 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. 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 run-off, 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 run-off, 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 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.

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 (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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.

A guidance document has been developed jointly by the Environmental Protection Agency and the Center for Disease Control on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants and this is available online at www.epa.gov/safewater or from the Safe Drinking Water Hotline at 800-426-4791.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

Visit www.epa.gov/watersense for more information.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Abbreviations and Definitions -

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

Lowest Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

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 Detected (MD)

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 Disinfection 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 contaminants.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Not Applicable (NA)

Not Detected (ND): Laboratory analysis indicates that the constituent is not present above detection limits of lab equipment.

ppb (parts per billion): micrograms per liter (µg/L)

ppm (parts per million): milligrams per liter (mg/L)

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

Variances & Exemptions: EPD or EPA permission not to meet an MCL or a treatment technique under certain conditions.