

Conclusion of Source Water Assessment

A susceptibility analysis identified several contaminant sources that potentially could affect the quality of the source water, as well as affect the operation of the C.B. Collier, Jr. Water Treatment Plant. To help address these concerns, Gadsden Water developed a Water Supply Contingency Plan. In addition, Gadsden Water monitors various points along Neely Henry Lake. These data results are used to track the water quality in the lake/river and to identify contaminant sources. These results will continue to be gathered and used for monitoring contamination to the lake/river. Gadsden Water realizes that protection of its water resources is vital to providing high-quality drinking water to our community. In an effort to protect our drinking water source, Gadsden Water is an active member of KEB, Renew our Rivers, and other environmental groups dedicated to protecting and restoring water quality and biological integrity in the Coosa River Basin.

Source Water Description

Gadsden Water's customers are fortunate because we enjoy an abundant water supply from the Coosa River. Our water source comes from The Middle Coosa Basin. This watershed contains 23 rivers and streams, as well 420 lakes and ponds, for a total surface area of 31,285.7 acres. There are approximately 3,359.6 total river miles within the basin, which is fed from the Upper Coosa Basin and multiple aquifers, including Pennsylvanian aquifers, Valley and Ridge aquifers, and Valley and Ridge carbonate-rock aquifers. All of the sources provided an average flow of approximately 4.7 billion gallons per day through the Gadsden area in 2022. From this source, our water treatment facilities can treat and supply up to 24 million gallons (just 0.51% of the total average daily flow) of clean drinking water every day for the City of Gadsden and surrounding water distribution systems. To learn more about our watershed, go to

http://cfpub.epa.gov/surf/huc.cfm?huc_code=03150106

Gadsden Water Treatment Facilities

C. B. Collier, Jr. Water Treatment Plant (WTP) – 24 MGD conventional water treatment plant, with the largest MIEX® Pretreatment plant in North America, and Granular Activated Carbon.

Gadsden West River WWTP – 11.320 MGD Trickling Filter Wastewater Treatment Plant

Gadsden East River WWTP – 6.184 MGD Trickling Filter Wastewater Treatment Plant

How much is leaking?

30 drops/minute = 84 gallons/month

60 drops/minute = 168 gallons/month

A running toilet can waste almost 200 gallons/day.

EXCITING NEWS

Gadsden Water is partnering with Insite Engineering to design and build what will be the LARGEST Reverse Osmosis (RO) Treatment facility in the state of Alabama!

Upon completion, this new treatment facility will provide our customers with the BEST water quality available. We look forward to sharing more with you, our valued customers, in the future! Stay tuned...

Gadsden Water Works & Sewer Board

515 Albert Rains Blvd.

P. O. Box 800

Gadsden, AL 35902

Per Gadsden Water's Stage 2 Disinfection Byproduct Monitoring Plan, we, Gadsden Water, are to sample for Disinfection Byproducts (DBPs) in February, May, August, and November, on the week beginning the fourth (4th) Wednesday of the monitoring month. In November 2022, Gadsden Water collected samples for DBP analyses on Tuesday, November 22nd, which was one (1) day early, per the monitoring plan. And, though the samples were taken one (1) day early, which means they were sampled outside of the appropriate time frame by one (1) day, the results of those samples ranged from 7.10 parts per billion (ppb) to 20 ppb for Total Trihalomethanes (TTHMs) and between 1.9 ppb and 18 ppb for Haloacetic Acids (HAA5s), which were well under the MCLs of 80 ppb for TTHMs and 60 ppb for HAA5s.

Also, our contract lab, Pace Analytical, failed to analyze for and/or report three (3) required parameters (nitrite, nitrate, and fluoride) as part of the annual Inorganic Compounds (IOC), which was properly collected in November of 2022. Because Gadsden Water sampled one (1) day early, and because Pace Analytical failed to perform/report required analyses, which they were contracted to do, we are required by the Alabama Department of Environmental Management (ADEM) to issue the following statement:

The Gadsden Water Works is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During October – December 2022, we did not monitor for disinfection byproducts (DBP) during the required time frame, and therefore cannot be sure of the quality of your drinking water during that time.

Because DBPS from these quarters will be used in determining compliance with DBP MCLS in the quarters of January – March 2023, April – June 2023, AND July – September 2023 The Gadsden Water Works will incur monitoring violations for those quarters.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Henceforth, Gadsden Water will follow the sampling/monitoring schedule detailed in the Stage 2 DBP Monitoring Plan, and not deviate from said plan, even if just by one (1) day. Gadsden Water has consistently met MCLS for DBPS, and continually strives to provide quality water to our customers that meets and/or exceeds every regulation. Unfortunately, in this instance, we collected our samples one (1) day early. Every effort will be made to ensure that samples are collected at the appointed time(s). For IOC analysis, Gadsden Water will ensure that, regardless of the contract lab utilized for these analyses, that all analyses are properly performed and/or reported.

Should you have any questions concerning this non-compliance or monitoring requirements, please contact: Mike Lankford at (256) 543-2884, ext. 223 OR mlankford@gadsdenwater.org

Also, Gadsden Water failed to submit February 2022 total organic carbon results to ADEM prior to the March 10, 2022 deadline. The results were submitted on March 11, 2022.

Did you know?

For the average price of one (1) 16.9 ounce bottle of water (\$0.14, when purchased in bulk), you can get about 32.5 gallons (4,160 ounces) of Gadsden Water.

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>.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell. During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

Contacts: Phone: 256-543-2884

Chad Hare, General Manager ext. 222

Mike Lankford, AGM/
Superintendent of Environmental Services ext. 223

Mike Gilliland, Business Manager ext. 201

Guy Posey, Superintendent of
Water Treatment & Production ext. 212



Substances That Could Be in Water

In order 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. The U.S. Food and Drug Administration establishes and regulates limits for contaminants in bottled water. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. However, the presence of contaminants does not necessarily indicate that 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 and radioactive material, and it can pick up 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.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often 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. Based on a study conducted by ADEM, with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AVERAGE DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2022	4	4	1.67	0.20–2.80	No	Water additive used to control microbes
Fecal coliform and E. coli (# positive samples)	2022	0	0	0	NA	No	Human and animal fecal waste
Fluoride (ppm)	2022	4	4	0.75	0.20 – 1.13	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum plants
Haloacetic Acids [HAAs] (ppb)	2022	60	NA	9.89	1.90 – 18.80	No	By-product of drinking water disinfection
Nitrate (ppm)	2022	10	10	0.24	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2022	80	NA	21.86	7.10 – 50.10	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2022	If 5% of monthly samples test positive	0	0	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	2022	TT	NA	0.85	0.14 – 1.48	No	Naturally present in the environment
Turbidity, (NTU)	2022	TT	NA	0.039	0.022 – 0.089	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2021	TT	NA	100	NA	No	Soil runoff

*Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90 th PERCENTILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCES
Copper (ppm)	2021	1.3	1.3	0.026	0/30	No	Corrosion of Household Plumbing Systems; Erosion of natural deposits
Lead (ppb)	2021	15	0	1.2	0/30	No	Corrosion of Household Plumbing Systems; Erosion of natural deposits

SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL	MCLG	AVERAGE DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2022	250	NA	25.2	NA	No	Runoff/leaching from natural deposits
Color (Units)	2022	15	NA	3.30	<3.0 – 5.0	No	Naturally occurring organic materials
Iron (ppb)	2022	300	NA	12	<10 – 60	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2022	50	NA	10.2	<5.0 – 37	No	Leaching from natural deposits
pH (Units)	2022	6.5–8.5	NA	7.47	7.0 - 7.8	No	Naturally occurring
Sulfate (ppm)	2022	250	NA	1.40	NA	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids [TDS] (ppm)	2022	500	NA	114	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	2022	5	NA	0.047	NA	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVERAGE DETECTED	RANGE (LOW – HIGH)	TYPICAL SOURCE
Bromodichloromethane (ppb)	2022	6.63	2.20 – 14.00	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2022	3.09	1.10 – 6.10	By-product of drinking water disinfection
Chloroform (ppb)	2022	12.11	3.70 – 31.00	By-product of drinking water disinfection
Sodium (ppm)	2022	16.2	NA	Naturally Occurring
Sulfate (ppm)	2022	1.40	NA	Naturally Occurring
PFOA & PFOS Combined (ppt)	2022	39	23 – 54	Man-made compounds found in source water

Meeting the Challenge

The Water Works & Sewer Board of the City of Gadsden (Gadsden Water) is proud, once again, to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards, continually striving to adopt new methods for delivering the best quality drinking water to our customers. 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 customers. Please share with us your thoughts, or concerns, about the information in this report. After all, well-informed customers are our closest allies.

Community Participation

If interested, you are invited to participate in our public forum/Board meeting. We meet the third Monday of each month, beginning at 4 p.m. in the Robert W. Echols, Jr. Executive Boardroom at the Administration Building, 515 Albert Rains Blvd., Gadsden, AL

Things You Can Do To Help

Make sure the plumbing system in your home or business is in good repair and proper working order. Lead pipes and lead solder should not be used. The lead from these can leach into your water. Have all leaks repaired to prevent the wasting of water.

City code requires that all customers have a check valve on their water service line to prevent the water in your system from running back into the public system. Section 606.1 of the International Plumbing Code requires each dwelling or business to have a customer-owned water isolation valve.

City Ordinance 16-45 requires that all customers connected to the sanitary sewer system have a backup valve, or backflow preventer, on their sewer lateral to prevent sewage from backing up into their residence in the event of a main line surcharge or blockage. The Water Works & Sewer Board of the City of Gadsden assumes no liability for any damages which may occur due the absence or malfunction of this valve.

Protect your pipes: Don’t pour Fats, Oils, & Grease, or flush Wipes down the drain; these products can cause clogs, which could lead to environmental impacts and/or property damage

Lead in Home Plumbing

As required by federal and state agencies, Gadsden Water has an outside laboratory monitor samples that are collected within our distribution system for lead. Lead levels in our system have historically been well below the minimum standard. Even though test results show we do not have lead problems within our distribution system, the following information about lead is required as a part of this report: 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. Gadsden Water is responsible for providing high-quality drinking water, however, we cannot control the variety of materials used in plumbing components. When water has been sitting stagnant for several hours, you can minimize the potential for lead exposure by flushing, or running, your tap 30 seconds to two (2) minutes before using the 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 online at www.epa.gov/safewater/lead

Definitions

- AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- 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
- 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).
- TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

The following substances were tested for in 2021 and not detected in our drinking water:

1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethylene, 1,2,4-Trichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, Benzene, Carbon Tetrachloride, Cis-1,2-Dichloroethylene, Ethylbenzene, Methylene Chloride (Dichloromethane), Monochlorobenzene, o-Dichlorobenzene, p-Dichlorobenzene, Styrene, TCE (Trichloroethylene), Tetrachloroethylene, Toluene, Trans-1,2-Dichloroethylene, Vinyl Chloride, Xylenes, 1,1-Dichloropropene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1-Dichloroethane, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, 1,3-Dichloropropane, 1,3-Dichloropropene, 1,3,5-Trimethylbenzene, 2,2-Dichloropropane, Bromobenzene, Bromochloromethane, Bromoform, Bromomethane, Chloroethane, Chloromethane, Dibromomethane, Dichlorodifluoromethane, Hexachlorobutadiene, Isopropylbenzene, M-Dichlorobenzene, Methyl-Tertiary Butyl Ether (MTBE), N-Butylbenzene, Naphthalene, N-Propylbenzene, o-Chlorotoluene, p-Chlorotoluene, p-Isopropyltoluene, Sec-Butylbenzene, Tert-Butylbenzene, Trichlorofluoromethane, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cyanide, Lead, Mercury, Nickel, Nitrite, Selenium, Thallium, Foaming Agents (Surfactants), Silver, Monobromoacetic Acid

Anyone interested in the detection limits and/or analytical information in general should contact Guy Posey at (256) 543-2884, ext. 212, or send an email message to gposey@gadsdenwater.org

PFC Testing

Gadsden Water, along with ADEM has conducted sampling for concentrations of perfluorinated compounds (PFCs), two (2) specifically, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), which the EPA has issued a DRAFT MCLs of four parts-per-trillion (4 ppt) each. While the proposed regulation progresses, Gadsden Water wants to remind our customers that since the addition of a granular activated carbon (GAC) system, which was brought on line in December 2018, Gadsden Water has collected and analyzed, to date, 120 samples, with the average combined PFOA/PFOS concentration being 33.4 ppt. As we continue to monitor our water for concentrations of these compounds, PFC information, along with all lab reports, every sample result, and updates on the design and construction of our reverse osmosis (RO) treatment system can be accessed via our website at www.gadsdenwater.org.

Questions?

For more information about this report, or for any questions relating to your drinking water, please contact Chad Hare, General Manager, by email at chare@gadsdenwater.org, or by phone at (256) 543-2884, ext. 222.