

2022

ANNUAL WATER QUALITY REPORT

Testing performed January through December 2022



Guntersville Water Board



Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), Guntersville Water Board has completed a Source Water Assessment plan that will assist in protecting our water sources. This plan provides additional information such as potential contaminants as high, moderate, or non-suspectible to contamination of the water source. Public notification has been completed and the plan has been approved by ADEM. A copy of the report is available in our office for review during normal business hours, or you may purchase a copy upon request for a nominal reproduction fee.

Water Notes

Guntersville relies on surface water from the Tennessee River Brown's Creek embayment on Lake Guntersville at Sunset Treatment Plant and one groundwater well for our drinking water supply. We also purchase water from MUB-Albertville (surface water from Short Creek) to supply to our customers on Sand Mountain. Guntersville Water Board supplies drinking water to the customers of Asbury Water Authority in the Asbury-Martling community.

Number of Customers: Approximately 4300
Storage Capacity: 10 tanks (4,950,000 gls)
Distribution System: 120 miles of water mains

We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. For more information regarding this report, or for any questions relating to your drinking water, please call Bay Chandler, General Manager, at 256-582-5931.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was signed into law on December 16, 1974. The purpose of the law is to assure that the nation's water supply systems serving the public meet minimum national standards for the protection of public health. The SDWA directed the U.S. Environmental Protection Agency (EPA) to establish

national drinking water standards. The 1996 Amendments to the SDWA created a need for Consumer Confidence Reports (Annual Water Quality Reports) to reveal to consumers the detected amounts of contaminants in their drinking water.

Information About Lead

Lead in drinking water is rarely found in source water but is primarily from materials and components associated with service lines and home plumbing. Your 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. 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. These recommended actions are very important to the health of your family.

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 www.epa.gov/safewater/lead.

More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).

General Information About Drinking Water

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 radioactive material, and it 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 which 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.

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. People at risk should seek advice about drinking water from their health care providers.

This water system also tests our source water for pathogens, such as *Cryptosporidium* and *Giardia*. These pathogens can enter the water from animal or human waste. For people who may be immuno-compromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at www.epa.gov/safewater/crypto.html or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of *cryptosporidium* in our drinking water. All test results were well within state and federal standards.

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.



www.gvillewater.com

TABLE OF DETECTED DRINKING WATER CONTAMINANTS

Contaminants	Violation Y/N	Detected WTP	Detected WELL	MCLG	MCL	Likely Source of Contamination
Chlorine (ppm)	NO	Range 2.0-2.7	Range 1.96-3.0	MRDLG =4	MRDL =4	Water additive used to control microbes
Chlorite (ppm)	NO	Range 0.32-0.63	N/A	0.80	1.00	Water additive used to control microbes
Turbidity (NTU)	NO	Highest 0.09 100% < 0.5	Highest 0.208	N/A	TT	Soil runoff
Total Organic Carbon (ppm)	NO	1.3-2.7	N/A	N/A	TT	Soil runoff
Barium (ppm)	NO	0.02	ND	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (ppm) (in distribution)	NO	90 th percentile 0.097* 0 > AL		1.3	AL=1.3	Corrosion of household plumbing systems; erosion; leaching from wood preservatives
Lead (ppm) (in distribution)	NO	90 th percentile ND* 1 > AL		0	AL=.015	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride (ppm)	NO	0.83	0.63	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from factories
Nitrate (ppm)	NO	ND	1.3	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Tetrachloroethylene (ppb)	NO	ND-4.80	ND	0	5	Discharge from metal degreasing sites and other factories
TTHM [Total trihalomethanes]	NO	LRAA Range 27.5-51.3		0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids] (ppb)	NO	LRAA Range 30.0-44.3		0	60	By-product of drinking water chlorination

Unregulated Contaminants

Chloroform (ppb)	NO	11.0	6.10	70	N/A	Naturally occurring; result of discharge or runoff
Bromodichloromethane (ppb)	NO	4.20	1.10	0	N/A	Naturally occurring; result of discharge or runoff
Chlorodibromomethane (ppb)	NO	ND	1.70	60	N/A	Naturally occurring; result of discharge or runoff
MTBE [Methyl tert-butyl ether] (ppb)	NO	ND	22.0	N/A	N/A	Gasoline runoff: tank spills or leak

Secondary Contaminants

Aluminum (ppm)	NO	0.02	ND	N/A	0.2	Natural erosion or from water treatment
Chloride (ppm)	NO	16.1	9.40	N/A	250	Naturally occurring or from runoff
Hardness (ppm)	NO	71.6	105	N/A	N/A	Naturally occurring or from water treatment
pH (S.U.)	NO	6.8	7.69	N/A	N/A	Naturally occurring or from water treatment
Sodium (ppm)	NO	6.9	3.45	N/A	N/A	Naturally occurring in the environment
Sulfate (ppm)	NO	11.9	1.68	N/A	250	Naturally occurring; result of discharge or runoff
Total Dissolved Solids (ppm)	NO	113	140	N/A	500	Naturally occurring; result of discharge or runoff
Zinc (ppm)	NO	0.07	ND	N/A	5	Natural erosion; discharge; runoff from landfills

*Figure shown is 90th percentile and # of sites above action level = 0

**Figure shown is 90th percentile and # of sites above action level = 1

Unregulated Contaminant Rule 4 (UCMR4) Contaminants (in ppb)

Contaminants	Level Detected	Contaminants	Level Detected
Germanium	ND	Tribufos	ND
Manganese	ND-17.3	1-butanol	ND-13.9
Alpha-hexachlorocyclohexane	ND	2-methoxyethanol	ND
Chlorpyrifos	ND	2-propen-1-ol	ND
Dimethipin	ND	Butylated hydroxyanisole	ND
Ethoprop	ND	O-toluidine	ND
Oxyfluorfen	ND	Quinoline	ND-0.05
Profenofos	ND	Total organic carbon (TOC)	2760-3920
Tebuconazole	ND	Bromide	ND-23.6
Total permethrin (cis- & trans-)	ND		
Bromochloroacetic Acid	2.02-3.90	Monobromoacetic Acid	ND
Bromodichloroacetic Acid	2.12-3.70	Monochloroacetic Acid	ND
Chlorodibromoacetic Acid	ND-0.76	Tribromoacetic Acid	ND
Dibromoacetic Acid	ND-1.4	Trichloroacetic Acid	7.22-19.8
Dichloroacetic Acid	7.61-21.2		
Anatoxin-a	ND	Cylindrospermopsin	ND

TVA Herbicide Results (in ppm)

Contaminant	Date Sampled	Result
Copper	6/15/22	ND
Copper	8/30/22	0.0011

Below is a list of PFAS contaminants our system monitored during 2022 and the results of that monitoring. PFAS are a group of man-made chemicals for which the EPA has not yet established primary drinking water standards. For more information on PFAS contaminants, please refer to www.epa.gov/pfas.

PFAS Contaminants (in ppb)

Contaminants	Detected WTP	Detected Well	Contaminants	Detected WTP	Detected Well
11CI-PF3OUdS (11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid)	ND-0.002	ND	Perfluoroheptanoic acid	ND	ND
9CI-PF3ONS (9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid)	ND	ND	Perfluorohexanesulfonic acid	ND	ND
ADONA (4,8-dioxa-3H-perfluorononanoic acid)	ND	ND	Perfluorononanoic acid	ND	ND
HFPO-DA (Hexafluoropropylene oxide dimer acidA)	ND	ND	Perfluorooctanesulfonic acid	ND-0.003	ND
NEtFOSAA (N-ethylperfluorooctanesulfonamidoacetic acid)	ND	ND	Perfluorooctanoic acid	ND-0.001	ND
NMeFOSAA (N-methylperfluorooctanesulfonamidoacetic acid)	ND	ND	Perfluorotetradecanoic acid	ND	ND
Perfluorobutanesulfonic acid	ND-0.003	ND	Perfluorotridecanoic acid	ND	ND
Perfluorodecanoic acid	ND	ND	Perfluoroundecanoic acid	ND	ND
Perfluorohexanoic acid	ND-0.002	ND	Total PFAS	ND-0.008	ND
Perfluorododecanoic acid	ND-0.002	ND			

Two Reporting Non-Compliances 2022

Guntersville Water Board and Sewer Board incurred two reporting non-compliances during 2022. Descriptions are below:

- PFAS – resulted from a failure to submit the January - June 2022 results by July 10, 2022.
- Total organic carbon (TOC) – resulted from a failure to submit the November 2022 results by December 10, 2022.

The ADEM Admin. Code states, “the supplier of water shall report to the Department the results of any test, measurement or analysis within the first 10 days following the month in which the result is received or the first 10 days following the end of the required monitoring period as stipulated by the Department, whichever is shortest.”

We did monitor for the contaminants during the correct time frame and results were in compliance; however, the results were not reported to ADEM before the 10th day of the month following the sample period. If you have any questions about this non-compliance or your water quality, please contact Bay Chandler, General Manager, at out office at 256-582-5931.

Monitoring Schedule

Guntersville Water Board routinely monitors for contaminants in your drinking water according to Federal and State laws, using EPA approved methods and a State certified laboratory. The Alabama Department of Environmental Management (ADEM) allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule. All test results were well within state and federal standards.

The following table is a list of *Primary Drinking Water Contaminants, Unregulated Contaminants, and Secondary Contaminants* for which our water system routinely monitors according to our regulatory schedule. These contaminants were *not* detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants*.

Standard List of Primary Drinking Water Contaminants

CONTAMINANT	MCL	UNIT OF MSMT	CONTAMINANT	MCL	UNIT OF MSMT	
Bacteriological Contaminants			Disinfectants & Disinfection Byproducts			
Total Coliform Bacteria	<5%	present/absent	Glyphosate	700	ppb	
Fecal Coliform and E. coli	0	present/absent	Heptachlor	400	ppt	
Fecal Indicators	0	present/absent	Heptachlor epoxide	200	ppt	
Turbidity	TT	NTU	Hexachlorobenzene	1	ppb	
Cryptosporidium	TT	Calc.organisms/l	Hexachlorocyclopentadiene	50	ppb	
Radiological Contaminants			Lindane	200	ppt	
Beta/photon emitters	4	mrem/yr	Methoxychlor	40	ppb	
Alpha emitters	15	pCi/l	Oxamyl [Vydate]	200	ppb	
Combined radium	5	pCi/l	Polychlorinated biphenyls	0.5	ppb	
Uranium	30	pCi/l	Pentachlorophenol	1	ppb	
Inorganic Chemicals			Picloram	500	ppb	
Antimony	6	ppb	Simazine	4	ppb	
Arsenic	10	ppb	Styrene	100	ppb	
Asbestos	7	MFL	Tetrachloroethylene	5	ppb	
Barium	2	ppm	Toluene	1	ppm	
Beryllium	4	ppb	Toxaphene	3	ppb	
Cadmium	5	ppb	2,4,5-TP(Silvex)	50	ppb	
Chromium	100	ppb	1,2,4-Trichlorobenzene	.07	ppm	
Copper	AL=1.3	ppm	1,1,1-Trichloroethane	200	ppb	
Cyanide	200	ppb	1,1,2-Trichloroethane	5	ppb	
Fluoride	4	ppm	Trichloroethylene	5	ppb	
Lead	AL=15	ppb	Vinyl Chloride	2	ppb	
Mercury	2	ppb	Xylenes	10	ppm	
Nitrate	10	ppm	UNREGULATED CONTAMINANTS			
Nitrite	1	ppm	1,1 - Dichloropropene	Aldicarb	Chloroform	Metolachlor
Selenium	.05	ppm	1,1,1,2-Tetrachloroethane	Aldicarb Sulfone	Chloromethane	Metribuzin
Thallium	.002	ppm	1,1,2,2-Tetrachloroethane	Aldicarb Sulfoxide	Dibromochloromethane	N - Butylbenzene
Organic Contaminants			1,1-Dichloroethane	Aldrin	Dibromomethane	Naphthalene
2,4-D	70	ppb	1,2,3 - Trichlorobenzene	Bromobenzene	Dicamba	N-Propylbenzene
Acrylamide	TT	TT	1,2,3 - Trichloropropane	Bromochloromethane	Dichlorodifluoromethane	O-Chlorotoluene
Alachlor	2	ppb	1,2,4 - Trimethylbenzene	Bromodichloromethane	Dieldrin	P-Chlorotoluene
Benzene	5	ppb	1,3 - Dichloropropane	Bromoform	Hexachlorobutadiene	P-Isopropyltoluene
Benzo(a)pyrene [PAHs]	200	ppt	1,3 - Dichloropropene	Bromomethane	Isopropylbenzene	Propachlor
Carbofuran	40	ppb	1,3,5 - Trimethylbenzene	Butachlor	M-Dichlorobenzene	Sec - Butylbenzene
Carbon tetrachloride	5	ppb	2,2 - Dichloropropane	Carbaryl	Methomyl	Tert - Butylbenzene
Chlordane	2	ppb	3-Hydroxycarbofuran	Chloroethane	MTBE	Trichlorofluoromethane
Chlorobenzene	100	ppb	SECONDARY CONTAMINANTS			
Dalapon	200	ppb	Alkalinity, Total (as CA, Co3)	Copper	Magnesium	Silver
Dibromochloropropane	200	ppt	Aluminum	Corrosivity	Manganese	Sodium
o-Dichlorobenzene	600	ppb	Calcium, as Ca	Foaming agents (MBAS)	Odor	Sulfate
p-Dichlorobenzene	75	ppb	Chloride	Hardness	Nickel	Total Dissolved Solids
1,2-Dichloroethane	5	ppb	Color	Iron	pH	Zinc
1,1-Dichloroethylene	7	ppb				
cis-1,2-Dichloroethylene	70	ppb				
trans-1,2-Dichloroethylene	100	ppb				
Dichloromethane	5	ppb				
1,2-Dichloropropane	5	ppb				
Di (2-ethylhexyl)adipate	400	ppb				
Di (2-ethylhexyl)phthalate	6	ppb				
Dinoseb	7	ppb				
Dioxin [2,3,7,8-TCDD]	30	ppq				
Diquat	20	ppb				
Endothall	100	ppb				
Endrin	2	ppb				
Epichlorohydrin	TT	TT				
Ethylbenzene	700	ppb				
Ethylene dibromide	50	ppt				

We routinely monitor for contaminants in your drinking water according to Federal and State laws, using EPA approved methods and a State certified laboratory. The Alabama Department of Environmental Management (ADEM) allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule. All test results were well within state and federal standards.

As you can see by the table, our system had no violations. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels. We are pleased to report that our drinking water is safe and meets federal and state requirements. This report shows our water quality and what it means.

Guntersville Water Board conducted an Initial Distribution System Evaluation (I.D.S.E.) in 2008 and early 2009 to further study disinfection byproduct levels in our drinking water.

CONSTITUENT MONITORED	DATE MONITORED
Inorganic Contaminants	2022
Lead/Copper	2022
Microbiological Contaminants	Current
Nitrates	2022
Radioactive Contaminants	2021
Synthetic Organic Contaminants (including pesticides and herbicides)	2022
Volatile Organic Contaminants	2022
Disinfection By-products	2022
PFAS Contaminants	2022
Cryptosporidium	2018
UCMR4 (Unregulated Contaminant Monitoring Rule) Contaminants	2020

Definitions

In this report you may find terms and abbreviations with which you might not be familiar.

To help you better understand these terms we've provided the following definitions:

Action Level – the concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.

Coliform Absent (ca) – Laboratory analysis indicates that the contaminant is not present.

Disinfection byproducts – are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite.

Distribution System Evaluation (DSE) – a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

Level 1 Assessment – a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Contaminant Level – (mandatory language) The Maximum Allowed (MCL) is 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 – (mandatory language) The Goal (MCLG) is 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.

Millirems per year (mrem/yr) – measure of radiation absorbed by the body.

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

Non-Detects (ND) – laboratory analysis indicates that the constituent is not present.

Not Required (NR) – laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.

Parts per billion (ppb) or Micrograms per liter (µg/L) – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per million (ppm) or Milligrams per liter (mg/l) – one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) – one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) – one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Picocuries per liter (pCi/L) – picocuries per liter is a measure of the radioactivity in water.

Treatment Technique (TT) – (mandatory language) a required process intended to reduce the level of a contaminant in drinking water.

Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.



**GUNTERSVILLE
WATER BOARD**
705 Blount Avenue
Guntersville, AL 35976

Continuing Our Commitment

Guntersville Water Board is proud to present to you our Annual Water Quality Report for drinking water monitoring completed from January through December 2022. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As always, we are committed to ensuring the quality of your water.



Community Participation

The Guntersville Water Board’s business office is located at 705 Blount Avenue. Our business hours are 8:00 a.m. to 4:30 p.m., Monday-Friday. We have monthly Board of Directors meetings that are open to the public the first Monday of each month at 5:00 p.m.

Our telephone numbers are:

- Office (256) 582-5931
- Nights - Weekends - Holidays (256) 506-9000
- Fax (256) 582-6923

www.gvillewater.com

Our Staff

Board of Directors

Michael Higdon
Frank J. Richter, Jr.
Kate White

General Manager

Bay Chandler

Water

Superintendent

Jeff Davis

Wastewater

Superintendent

Jim Matthews

Office

Breanna Atchley
Anita Brown
Paige Mason
Terryn Rice
Meg Smith
Debbie Sutton

Meter Readers

Jason Carroll
Kyle Green

Maintenance

Phillip Bishop
Garrett Dalrymple
Josh Hill
Dru Jones
Jimmy Raines
Ted Reed
Corey Thompson

Water Treatment

John Banks
Dwayne Collins
James Conn
Stefan Henderson
Luke Gary
Caleb Graham
Brooks Malone
Mitchell Redington
Coy Starnes
Allen Walker

Wastewater

Mark Bevill
Brock Clifton
Mark Helton
Daniel Maze
Jim Murphee
Mike Spurgeon

Bill Payment

For your convenience, you can pay your bill in a variety of ways:

Bank Draft – Your payment is automatically withdrawn from your bank account on the 10th of each month. Please call the office to sign up.

Online – You can visit our website at www.gvillewater.com to pay your bill by debit or credit card or call 1-800-822-1358. You will need your account number and pin number from your statement. There is a service fee for each transaction.

Night Deposit – This is located at the Water Board office at 705 Blount Avenue. You may also leave your payment at the Marshall County Gas District.

By Mail or In Person –
Guntersville Water Board
705 Blount Avenue
Guntersville, AL 35976-1505

www.gvillewater.com