

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 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.

Cryptosporidium and *Giardia* are microscopic organisms that are relatively widespread in the environment. Surface waters, such as lakes and rivers that contain a high amount of sewage contamination or animal wastes are more susceptible to increased numbers of these parasites. Your source water systems are taking steps to make sure these organisms do not pose a problem in your drinking water. Current protection measures include chlorination, filtration, and monitoring turbidity levels and particle sizes. Additionally, routine back-washing of the filters helps to eliminate the chances of finding these organisms in treated water. Occasionally, these organisms have been found in the raw (untreated) water, but neither *Cryptosporidium* nor *Giardia* have been found in the finished (treated) water.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immunocompromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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.

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 more likely to cause leaching of lead from plumbing materials. 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 brass fittings which contain some lead, or your home has copper pipes with lead solder and you have 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 and steps you can take to minimize exposure is available from the Safe Drinking Water hotline (1-800-426-4791) or from the EPA's website, www.epa.gov/safewater/lead.

TTHM MCL Violation 2019

Wetumpka Water Works and Sewer Board recently violated a drinking water standard. Although this is not an emergency, as our customers you have a right to know what happened, what you should do, and what we are doing to correct this situation. We routinely monitor for the presence of drinking water contaminants. Testing results we received in February 2019 showed that our system exceeded the Maximum Contaminant Level (MCL) for total trihalomethanes (TTHM) at one sample site. The MCL for TTHM is 80 ppb. The chart below lists the location, contaminant, and level that exceeded the MCL.

Location	Contaminant	Level
134 Redland Road	TTHM	0.089 mg/L
675 Wilson Street	TTHM	0.087 mg/L

This is not an immediate risk. If it had been, you would have been notified immediately. However, some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer. However, if you have specific health concerns, consult your doctor. 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. We will continue to monitor for these constituents on a quarterly basis, and we are working to reduce levels of TTHM in your drinking water. If you have any questions about this violation or our monitoring requirements, please contact Ronnie Windham, General Manager, at our water office at 2909 Elmore Road or by phone at 334-567-8404.

Monitoring Schedule and Results

Our source water is monitored for contaminants according to a schedule assigned by the ADEM, using EPA approved methods and a state certified laboratory. The ADEM allows us to monitor for some contaminants less than once per year because the concentrations do not change frequently. 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.

Constituent Monitored	Wetumpka	CEWA	Five Star
Inorganic Contaminants	--	2019	2019
Microbiological Contaminants	Monthly	Monthly	Monthly
Lead and Copper	2019	2019	2019
Nitrates	--	2019	2019
Radiological Contaminants	--	2016	2019
Synthetic Organic Contaminants	--	2016	2019
Volatile Organic Contaminants	--	2018	2019
Disinfection By-products	2019	2018	2019
Cryptosporidium and Giardia	--	2017	2017
UCMR4 Contaminants	2018	2018	--

Definitions

Action Level: the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

Coliform Absent (ca): laboratory analysis indicates that the contaminant is not present.

Detected contaminant: any regulated or unregulated contaminant detected at or above its method detection limit (or reportable limit)

Disinfection byproducts (DBPs): formed when disinfectants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water.

Distribution System Evaluation (DSE): 4-quarter study conducted by water systems to identify locations with high concentrations of THMs and HAAs.

Locational Running Annual Average (LRAA) – yearly average of all the DPB results at each specific sampling site

Maximum Contaminant Level (MCL): highest level of a contaminant that is allowed in drinking water.

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.

Maximum Residual Disinfectant Level (MRDL): highest level of a disinfectant allowed in drinking water

Micrograms per liter (ug/L): equivalent to parts per billion (ppb) since one liter of water is equal in weight to one billion micrograms.

Microsiemens per centimeter (µs/cm): unit of measurement for Specific Conductance.

Milligrams per liter (mg/L): equivalent to parts per million

Millirems per year (mrem/yr): a 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.

90th Percentile: The values reported for lead and copper represent the 90th percentile. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

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

NR (Not Reported): laboratory analysis, usually Secondary Contaminants, not reported by water system.

Parts per billion (ppb) or Micrograms per liter (µg/l): 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): corresponds to one minute in two years or a single penny in \$10,000.

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

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

Standard Units (S.U.): pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas.

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

Unregulated Contaminants: contaminants for which the EPA has not established MCLs.

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

2020 Annual Water Quality Report (Testing Performed January through December 2019)

WETUMPKA WATER WORKS AND SEWER BOARD

PWSID AL0000551
2909 Elmore Road
P.O. Box 69
Wetumpka, AL 36092
Phone 334-567-8404
Fax 334-567-8410
www.wetumpkawater.com

We are pleased to present to you this year's Annual Water Quality Report, covering water quality data from January through December 2019. Our drinking water supply met or surpassed the strict regulations of the Alabama Department of Environmental Management (ADEM) and the U. S. Environmental Protection Agency (EPA), which requires all public water suppliers to prepare and distribute reports like this once every year.

Water Sources	Central Elmore Water Authority (Lake Martin)
	Five Star Water Supply District (Lake Jordan)
	Montgomery Water Works (Tallapoosa River) *
Treatment	Filtration and chlorination for disinfection
Storage	2 tanks with a total capacity of 2,750,000 gallons
Customers	Approximately 3200
Water Board Staff	Ronnie Windham, General Manager
	Michael Digmon, Water Supt.
	Chris Bowar, Wastewater Supt.
	Sharon Lewis, Office Mgr/Board Sec.
Water Board Members	John Strickland, Chairman
	Jason Mattox, Vice-Chairman
	Robert Hankins, Treasurer

* Did not purchase from Montgomery Water Works (MWW) in 2019; therefore, MWW data not required for this report.

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), Source Water Assessment Plans have been developed by each of the water systems that supply your drinking water. These plans assist in protecting our water sources. The plans provide additional information such as potential sources of contamination and a Susceptibility Analysis, which classifies potential contaminants as high, moderate, or non-susceptible to contaminating the water source. Please call our office to find out how to review a copy of any of these Plans.

Please help us make this effort worthwhile by protecting our source waters. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden, and properly dispose of household chemicals, paints and waste oil.

Questions?

We are pleased to report that our drinking water meets federal and state requirements. If you have any questions about this report or concerning your water utility, please contact Ronnie Windham, General Manager, at 334-567-8404. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the fourth Tuesday of each month at 1:00 p.m. in the Water Works Office at 2909 Elmore Road.

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).

Detected Drinking Water Contaminants: Wetumpka Water Works and Sewer Board						
Contaminants	Violation	Level Detected	Msmt	MCLG	MCL	Likely Source of Contamination
Copper	NO	0.036 *	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Total trihalomethanes (TTHM)	NO	High LRAA 54.2 (29.4-67.1)	ppb	0	80	By-product of drinking water chlorination
Total haloacetic acids (HAA5)	NO	High LRAA 23.0 (18.4-28.1)	ppb	0	60	By-product of drinking water chlorination

UCMR 4 Contaminants: Wetumpka Water Works and Sewer Board

Contaminant	Unit Msmt	Level Detected	Contaminant	Unit Msmt	Level Detected	Haloacetic Acids	Unit Msmt	Level Detected
Germanium	ppb	ND	Tribufos	ppb	ND	HAA5	ppb	8.2-77.1
Manganese	ppb	0.61-6.4	1-butanol	ppb	ND	HAA6Br	ppb	2.7-6.62
Alpha-hexachlorocyclohexane	ppb	ND	2-methoxyethanol	ppb	ND	HAA9	ppb	11.0-83.5
Chlorpyrifos	ppb	ND	2-propen-1-ol	ppb	ND			
Dimethipin	ppb	ND	Butylated hydroxyanisole	ppb	ND			
Ethoprop	ppb	ND	O-toluidine	ppb	ND			
Oxyfluorfen	ppb	ND	Quinoline	ppb	ND			
Profenofos	ppb	ND	Total organic carbon (TOC)	ppb	ND			
Tebuconazole	ppb	ND	Bromide	ppb	ND			
Total permethrin (cis- & trans-)	ppb	ND						

* Level Detected = 90th percentile and number of sites above the Action Level (AL) = 0

**Detected Drinking Water Contaminants:
Central Elmore Water Authority (CEWA) & Five Star Water Supply District**

Contaminants	Violation	CEWA	Five Star	Unit of	MCLG	MCL	Likely Source of Contamination
		Level Detected	Msmt	Msmt			
Turbidity	NO	0.090	0.12	NTU	none	TT	Soil runoff (Measure of cloudiness of the water)
Total Organic Carbon	NO	1.10-1.54	1.18-1.73	ppm	none	TT	Soil runoff
Alpha Emitters	NO	ND	2.69	PCi/l	0	15	Erosion of natural deposits
Antimony	NO	ND	0.17	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	NO	0.0002	0.48	ppb	none	50	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	NO	0.01	0.03	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
1,1-Dichloroethylene	NO	ND	0.60-0.80	ppb	7	7	Discharge from industrial chemical factories
Fluoride	NO	0.56	0.23	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; factory discharge
Nitrate (as Nitrogen)	NO	0.15	0.17	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total trihalomethanes (TTHM)	NO	16.0-32.0	37.5-48.6	ppb	0	80	By-product of drinking water chlorination
Total haloacetic acids (HAA5)	NO	10.0-18.0	10.5-19.4	ppb	0	60	By-product of drinking water chlorination

Unregulated Contaminants

Chloroform	NO	17.0	14.9-49.3	ppb	70	none	Naturally occurring or from runoff or industrial discharge
Bromodichloromethane	NO	4.00	2.36-13.9	ppb	none	none	Naturally occurring or from runoff or industrial discharge
Chlorodibromomethane	NO	0.80	0.02-2.87	ppb	60	none	Naturally occurring or from runoff or industrial discharge

Secondary Contaminants

							(Secondary Standards)
Aluminum	NO	ND	0.05	ppm	none	0.2	Erosion of natural deposits or from water treatment
Chloride	NO	10.0	6.00	ppm	none	250	Naturally occurring or from runoff
Hardness	NO	91.0	75.3	ppm	none	none	Naturally occurring or from water treatment
Iron	NO	0.10	0.03	ppm	n/a	0.30	Naturally occurring in the environment; erosion
Manganese	NO	ND	0.05	ppm	n/a	0.05	Erosion of natural deposits; leaching from pipes
pH	NO	8.6	8.0	S.U.	none	8.5	Naturally occurring or from water treatment
Sodium	NO	12.5	4.03	ppm	none	none	Naturally occurring in the environment
Sulfate	NO	13.6	14.8	ppm	none	250	Naturally occurring in the environment; erosion
Total Dissolved Solids	NO	58.0	92.0	ppm	none	500	Naturally occurring or from runoff

UCMR 4 Contaminants - CEWA

Contaminant	Unit Msmt	Level Detected	Contaminant	Unit Msmt	Level Detected	Haloacetic Acids	Unit Msmt	Level Detected
Germanium	ppb	ND	Tribufos	ppb	ND	HAA5	ppb	10.0-13.0
Manganese	ppb	0.002	1-butanol	ppb	ND	HAA6Br	ppb	4.00-5.00
Alpha-hexachlorocyclohexane	ppb	ND	2-methoxyethanol	ppb	ND	HAA9	ppb	13.0-17.0
Chlorpyrifos	ppb	ND	2-propen-1-ol	ppb	ND			
Dimethipin	ppb	ND	Butylated hydroxyanisole	ppb	ND			
Ethoprop	ppb	ND	O-toluidine	ppb	ND			
Oxyfluorfen	ppb	ND	Quinoline	ppb	ND			
Profenofos	ppb	ND	Total organic carbon (TOC)	ppb	ND			
Tebuconazole	ppb	ND	Bromide	ppb	ND			
Total permethrin (cis- & trans-)	ppb	ND						

Below is a table of contaminants for which the Environmental Protection Agency and the Alabama Department of Environmental Management require testing. These contaminants were not detected in your drinking water unless they are also listed in the Detected Drinking Water Contaminants table elsewhere in this report.

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS

Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Bacteriological Contaminants					
Total Coliform Bacteria	<5%	present/absent	trans-1,2-Dichloroethylene	100	ppb
Fecal Coliform and E. coli	0	present/absent	Dichloromethane	5	ppb
Turbidity	TT	NTU	1,2-Dichloropropane	5	ppb
Cryptosporidium	TT	Calc.organisms/l	Di (2-ethylhexyl)adipate	400	ppb
Radiological Contaminants					
Beta/photon emitters	4	mrem/yr	Di (2-ethylhexyl)phthalate	6	ppb
Alpha emitters	15	pCi/l	Dinoseb	7	ppb
Combined radium	5	pCi/l	Dioxin [2,3,7,8-TCDD]	30	ppq
Uranium	30	pCi/l	Diquat	20	ppb
Inorganic Chemicals					
Antimony	6	ppb	Endothall	100	ppb
Arsenic	10	ppb	Endrin	2	ppb
Asbestos	7	MFL	Epichlorohydrin	TT	TT
Barium	2	ppm	Ethylbenzene	700	ppb
Beryllium	4	ppb	Ethylene dibromide	50	ppt
Cadmium	5	ppb	Glyphosate	700	ppb
Chromium	100	ppb	Heptachlor	400	ppt
Copper	AL=1.3	ppm	Heptachlor epoxide	200	ppt
Cyanide	200	ppb	Hexachlorobenzene	1	ppb
Fluoride	4	ppm	Hexachlorocyclopentadiene	50	ppb
Lead	AL=15	ppb	Lindane	200	ppt
Mercury	2	ppb	Methoxychlor	40	ppb
Nitrate	10	ppm	Oxamyl [Vydate]	200	ppb
Nitrite	1	ppm	Polychlorinated biphenyls	0.5	ppb
Selenium	.05	ppm	Pentachlorophenol	1	ppb
Thallium	.002	ppm	Picloram	500	ppb
Organic Contaminants					
2,4-D	70	ppb	Simazine	4	ppb
Acrylamide	TT	TT	Styrene	100	ppb
Alachlor	2	ppb	Tetachloroethylene	5	ppb
Benzene	5	ppb	Toluene	1	ppm
Benzo(a)pyrene [PAHs]	200	ppt	Toxaphene	3	ppb
Carbofuran	40	ppb	2,4,5-TP(Silvex)	50	ppb
Carbon tetrachloride	5	ppb	1,2,4-Trichlorobenzene	.07	ppm
Chlordane	2	ppb	1,1,1-Trichloroethane	200	ppb
Chlorobenzene	100	ppb	1,1,2-Trichloroethane	5	ppb
Dalapon	200	ppb	Trichloroethylene	5	ppb
Dibromochloropropane	200	ppt	Vinyl Chloride	2	ppb
1,2-Dichlorobenzene	1000	ppb	Xylenes	10	ppm
1,4-Dichlorobenzene (para)	75	ppb	Disinfectants & Disinfection Byproducts		
o-Dichlorobenzene	600	ppb	Chlorine	4	ppm
1,2-Dichloroethane	5	ppb	Chlorine Dioxide	800	ppb
1,1-Dichloroethylene	7	ppb	Chloramines	4	ppm
cis-1,2-Dichloroethylene	70	ppb	Bromate	10	ppb
LIST OF SECONDARY CONTAMINANTS					
Alkalinity, Total (as CA, Co ₃)	Alkalinity, Total (as CA, Co ₃)	Alkalinity, Total (as CA, Co ₃)			
Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Calcium, as Ca	Calcium, as Ca	Calcium, as Ca	Calcium, as Ca	Calcium, as Ca	Calcium, as Ca
Chloride	Chloride	Chloride	Chloride	Chloride	Chloride
Color	Color	Color	Color	Color	Color

LIST OF UNREGULATED CONTAMINANTS

Aldicarb	Chloroethane	Hexachlorobutadiene	Propachlor
Aldicarb Sulfone	Chloroform	3-Hydroxycarbofuran	N-Propylbenzene
Aldicarb Sulfoxide	Chloromethane	Isopropylbenzene	Propachlor
Aldrin	O-Chlorotoluene	p-Isopropyltoluene	1,1,1,2-Tetrachloroethane
Bromoacetic Acid	P-Chlorotoluene	M-Dichlorobenzene	1,1,2,2-Tetrachloroethane
Bromobenzene	Dibromochloromethane	Methomyl	Tetrachloroethene
Bromochloromethane	Dibromomethane	Methomyl	Trichloroacetic Acid
Bromodichloromethane	1,1-Dichloroethane	Methylene chloride	1,2,3-Trichlorobenzene
Bromoforn	1,3-Dichloropropane	Methyl tert-butyl ether	Trichloroethene
Bromomethane	2,2-Dichloropropane	Metolachlor	Trichlorofluoromethane
Butachlor	1,1-Dichloropropene	Metribuzin	1,2,3-Trichloropropane
N-Butylbenzene	1,3-Dichloropropene	MTBE	1,2,4-Trimethylbenzene
Sec-Butylbenzene	Dicamba	Naphthalene	1,3,5-Trimethylbenzene
Tert - Butylbenzene	Dichlorodifluoromethane	1-Naphthol	
Carbaryl	Dieldrin	Paraquat	