

Drinking Water Information

The sources of drinking water, both tap 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, 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 the result from urban storm water 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 storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by products of industrial chemical 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 the result of oil and gas production and mining activities.

In order to insure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk

Some people might be more vulnerable to contaminants in drinking water than the general population. People who are immune compromised due to illness, the elderly, as well as infants can be at risk from infection. Those at risk should seek advice about drinking water from their health care provider. EPA/CDC guidelines are appropriate measures to lessen the risk of infection by Cryptosporidium and other microbial contaminants. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

West Morgan East Lawrence Water and Sewer Authority

P.O. Box 2254
Decatur, AL 35609
(256)355-3746

Office Hours: 7:30 a.m. – 4:30 p.m. Mon.-Fri.

2021 Annual Water Quality Report

We prepared this report to inform you of the quality of your drinking water using testing data conducted for our system from January to December 2021. We strive to deliver water that meet or exceeds regulatory requirements for quality and safety. The regularly scheduled board meeting is held on the first Thursday of the month at 9 a.m. in the Authority board room located at 2547 Kirby Bridge Road. For information concerning this report or water quality, please contact the treatment plant at (256) 637-2969. Board Members: Mark Clark, Member; Hal Lee, Chairman; Keith Russell, Vice Chairman; Ken James, Member; Amard Martin, Secretary

Our water source is surface water from the wheeler Lake reservoir on the Tennessee River, which is processed at the J.D. Sims – R.M. Hames Water Treatment Facility, located at Lock A, near Hillsboro in Lawrence County. We also have connections with Decatur Utilities for an emergency supply if needed. We have completed our source water protection plan as required by EPA. This plan provides information about potential sources of contamination in our source water area and is available at our office.

Treatment Technique: Our raw water is treated with Chlorine Dioxide and Alum in the process of removing contaminants by causing them to coagulate and settle out in our settling basins. The water is then filtered through Micro membrane and Reverse Osmosis filters. Sodium Hypochlorite is added for disinfection, Lime to adjust pH, and Ortho-Polyphosphate for cathodic protection.

Variance and Waivers

In 1998, WMELSA completed lead and copper monitoring without exceeding any action level. The Authority will continue to monitor for lead and copper every three years. Based on a study conducted by ADEM, with the approval of EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants is not required.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, 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 Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. When coliform bacteria are found, special follow up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television, or radio. 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. WMELWSA cannot control the variety of materials used in plumbing components, When your water has been sitting for several hours, you should flush your tap for 30 seconds to 2 minutes to minimize the potential for lead exposure. Information on lead in drinking water is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Monitoring Schedule

The EPA or ADEM requires us to monitor for certain 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 this regulatory schedule.

Constituents Monitored	Year
Inorganic Contaminants	2021
Lead/Copper	2019
Microbial Contaminants	2021
Nitrates	2021
Radioactive Contaminants	2020
Synthetic Organic Contaminants	2020
Volatile Organic Contaminants	2021
Disinfection By Products	2021
Cryptosporidium	2017
UCMR 4	2018
DSE Disinfection Byproducts	2017

Plain Language Definitions:

MCL- Maximum Contaminant Level- highest level of a contaminant allowed in drinking water.

MCLG- Maximum Contaminant Level Goal- the level of a contaminant in drinking water below which there is no known or expected risk to health.

AL (Action Level)- the concentration of a contaminant which if exceeded triggers treatment or other requirements to be followed.

TT (Treatment Technique)- required process to reduce a contaminant.

PPM- parts per million or milligrams per liter- corresponds to 1 minute in 2 years or a single penny in \$10,000.

PPB- parts per billion or micrograms per liter- corresponds to 1 minute in 2,000 years or a single penny in \$10,000,000.

PPT- parts per trillion or nanograms per liter- corresponds to 1 minute in 2,000,000 years or 1 penny in \$10,000,000,000.

NTU- Nephelometric Turbidity Unit- measurement of the clarity of water.

N/A- Not applicable

Non- Detect- constituent is not present

HAAS- Total Haloacetic Acids

TTHM- Total Trihalomethanes

Detected Drinking Water Contaminants

CONTAMINANT	MCLG	MCL	RANGE	DETECTED	UNIT	CONTAMINATION SOURCE
Chlorine	MDRL 4	MDRL 4	1.19- 2.60	1.74	ppm	additive used to control microbes
Chlorine Dioxide	n/a	.8	0-.07	.07	ppm	additive used to control microbes
Chlorite	n/a	1.0	0-.03	.03	ppm	additive used to control microbes
Turbidity	0	TT	-	.031	NTU	Soil runoff
Total Organic Carbon	n/a	TT	0- 1.07	.23	ppm	Soil runoff
Nitrate, as N	10	10	n/a	.31	ppm	Runoff from fertilizer use, sewage
Barium	2	2	.025	.025	ppm	discharge of drilling wastes, metal refineries, erosion of natural deposits
HAA5	0	60	0-16	4.1	ppb	disinfection by product
TTHM	0	80	0-34	11.8	ppb	disinfection by product
Copper	1.3	AL=1.3	.013	.013	ppm	erosion of natural deposits, plumbing corrosion
Lead	.015	AL=.015	.0013	.0013	ppm	erosion of natural deposits, plumbing corrosion
Unregulated Contaminants						
PFOA	n/a	n/a	0-4	4	ppt	manufacturing chemical found in soil, air, and groundwater
Bromodichloromethane	n/a	n/a	0-.0039	.0039	ppm	naturally occurring in the environment, or runoff
Chloroform	n/a	n/a	.0042	.0042	ppm	chlorination by product
Secondary Contaminants						
Aluminum	n/a	.2	.18	.18	ppm	mining and weathering of minerals, naturally occurring
Chloride	n/a	250	9.2	9.2	ppm	naturally occurring or from runoff
Calcium	n/a	n/a	21.9	21.9	ppm	naturally occurring , dissolved mineral
Magnesium	n/a	n/a	4.8	4.8	ppm	naturally occurring in the environment
Iron	n/a	.3	0-.020	.011	ppm	occurs naturally or from water treatment
Manganese	n/a	.05	0-.041	.010	ppm	naturally occurring
pH	n/a	6.5-8.5	7.2-8.2	7.65	n/a	naturally occurring or from runoff
Nickel	n/a	n/a	.0065	.0065	ppm	leaching from pipe and pipe fittings
Sodium	n/a	n/a	7.0	7.0	ppm	naturally occurring
Sulfate	n/a	250	23.7	23.7	ppm	naturally occurring or from runoff
Total Dissolved Solids	n/a	500	117	117	ppm	naturally occurring or from runoff
Total Hardness, as CaCO3	n/a	n/a	74.5	74.5	ppm	naturally occurring or from runoff
Alkalinity, total as CaCO3	n/a	n/a	45.5	45.5	ppm	carbonate, bicarbonate, and hydroxide
Specific Conductance	n/a	n/a	181	181	umho s/cm	measure of how well water can conduct an electrical current
Langelier Index	n/a	n/a	-1.38	-1.38	n/a	waters tendency to inhibit or encourage corrosion
Long Term 2 Enhanced Surface Water Treatment Rule (Tested on source water, pre-treatment)						
Cryptosporidium	0	TT	0-3	3	cysts/L	wildlife/human activity
Giardia	0	TT	0-5	5	cysts/L	wildlife/human activity

Standard List of Primary Drinking Water Contaminants					
Contaminant	MCL	Unit	Contaminant	MCL	Unit
Total Coliform Bacteria	<5%	present or absent	trans-1,2-Dichloroethylene	100	ppb
Fecal Coliform and Ecoli	0	present or absent	Dichloromethane	5	ppb
Turbidity	TT	NTU	1,2-Dichloropropane	5	ppb
Cryptosporidium	TT	Calculated organisms/L	Di (2-ethylhexyl)adipate	400	ppb
Beta/Photon emitters	4	mewm/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	30	ppq
Uranium	30	pCi/L	Diquat	20	ppb
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	Glyphosphate	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 (PCBs)	0.5	ppb
Selenium	.05	ppm	Pentachlorophenol	1	ppb
Thallium	.002	ppm	Picloram	500	ppb
2,4-D	70	ppb	Simazine	4	ppb
Acrylamide	TT	TT	Styrene	100	ppb
Alachlor	2	ppb	Tetrachloroethylene	5	ppb
Benzene	5	ppb	Toluene	1	ppm
Benzo(a)pyrene [PAHs]	200	ppl	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
Dalapon	200	ppb	1,1,2-Trichloroethane	5	ppb
Dibromochloropropane	200	ppt	Trichloroethylene	5	ppb
o-Dichlorobenzene	600	ppb	Vinyl chloride	2	ppb
p-Dichlorobenzene	75	ppb	Xylenes	10	ppm
1,2-Dichloroethane	5	ppb	Chlorine	4	ppm
1,1-Dichloroethylene	7	ppb	Chlorine Dioxide	800	ppb
cis-1,2-Dichloroethylene	70	ppb	Chloramines	4	ppm
Bromate	10	ppb	Chlorite	1	ppm
TTHM	80	ppb	HAA5	60	ppb
Total Organic Carbon	TT	ppm	Atrazine	.003	ppm
Legionella	TT	TT	Viruses (enteric)	TT	TT
Giardia lamblia	TT	TT	Heterotrophic plate count	TT	TT

UCMR 4		
The fourth unregulated contaminant monitoring rule requires some systems to monitor for 30 unregulated contaminants during 2018-2020. The table below shows the results of the detected contaminants.		
Contaminants	Detected (ppb)	Range
Raw Water (before treatment)		
Bromide	33.5	27.4-45.3
Total Organic Carbon	2428	2040-3060
Entry Point (treatment plant)		
Manganese	.944	.485-1.60
Distribution System Data		
HAA5	5.41	2.91-7.52
HAA6Br	6.54	4.19-9.58
HAA9	10.45	6.29-14.37

Unregulated Contaminants		
1,1-Dichloropropene	Bromobenzene	Aldicarb
1,1,1,2-Tetrachloroethane	Aldicarb Sulfone	Aldrin
1,1,2,2-Tetrachloroethane	Aldicarb Sulfoxide	Bromoform
1,3,5-Trimethylbenzene	Dibromomethane	Butachlor
2,2-Dichloropropane	Isopropylbenzene	Carbaryl
Dichlorodifluoromethane	Sec-Butylbenzene	Chloroform
Dibromochloromethane	Bromomethane	Dieldrin
3-Hydroxycarbofuran	P-Chlorotoluene	Dicamba
1,3-Dichloropropene	O-Chlorotoluene	Methomyl
1,3-Dichloropropane	N-Butylbenzene	MTBE
1,2,3-Trichloropropane	N-Propylbenzene	Metribuzin
Trichlorofluoromethane	1,1-Dichloroethane	Propachlor
Bromochloromethane	Chloromethane	Metolachlor
Bromodichloromethane	1,1-Dichloroethane	Naphthalene
Hexachlorobutadiene	M-Dichlorobenzene	Chloroethane
Tert-Butylbenzene	P-Isopropyltoluene	
1,2,4-Trimethylbenzene		

Secondary Drinking Water Contaminants		
Aluminum	Fluoride	pH
Chloride	Foaming agents	Silver
Color	Iron	Sulfate
Copper	Manganese	Total Dissolved Solids
Corrosivity	Odor	Zinc

Message from Our General Manager:

As the General Manager, I am immensely proud of the staff of WMELWSA. With only 35 full time professionals, they are dedicated to servicing the community, their colleagues, and you the customer. That pride is to be shared with the community as a whole.

Over the course of the last five decades, discoveries of contaminants in source water, not just here in Alabama, but all across the country, have resulted in changes to drinking water regulations. In the next three years, new EPA requirements will attempt to find new drinking water contaminants with the goal of properly addressing them to protect public health. This new state of the art reverse osmosis treatment facility addresses past health advisories, current challenges are being met, and we expect to be compliant with whatever new drinking water regulations that may come from EPA in the future. WMEL believes this plant represents a new level of commitment to the people of western Morgan and eastern Lawrence County. WMEL has responded to the need of high quality drinking water while staying a responsible steward of the funds entrusted to the Utility. With this plant, we've not only lived up to the standards set for us, but we are leaving a legacy that will stand the test of time.

We update the strategic planning framework every year with a current understanding of reasonably foreseeable economic, social, and environmental conditions. Over the past year, myself, The Board of Directors, and management staff took the opportunity to define our Utility's vision and update our goals. We settled on four goal statements to add definition to our vision:

“Excellence through Innovation”

- **Be Responsive to the needs of the community**
- **Be the model of innovation and efficiency in public service**
- **Be a responsible steward of the rate payer funds**
- **Be the employer of choice for existing and future staff**

A copy of our updated 5 year plan can be found on WMEL's website: wmel.org

Thank you,

Jeaniece Slater

General Manager