2019 THE WATER WE DRINK

MONROE WATER SYSTEM
Public Water Supply ID: **LA1073031**

A Source Water Assessment Plan (SWAP) is now available from our office. This plan is an assessment of a delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. According to the Source Water Assessment Plan, our water system had a susceptibility rating of 'HIGH'. If you would like to review the Source Water Assessment Plan, please feel free to contact our office.

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 regulations establish limits for contaminants in bottled water which must provide the same protection for public health. We want our valued customers to be informed about their water utility. If you have any questions about this report, want to attend any scheduled meetings, or simply want to learn more about your drinking water, please contact JAMES E. MAYO at 318-329-2310.

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. MONROE WATER SYSTEM is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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. 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 http://www.epa.gov/safewater/lead.

The Louisiana Department of Health and Hospitals - Office of Public Health routinely monitors for constituents in your drinking water according to Federal and State laws. The tables that follow show the results of our monitoring during the period of January 1st to December 31st, 2019. 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 water poses a health risk.

During the period covered by this report we had below noted violations of drinking water regulations.

Compliance Period	Analyte	Type
4/1/2019 - 6/30/2019	TOTAL HALOACETIC ACIDS (HAA5)	MCL, LRAA
7/1/2019 - 9/30/2019	TOTAL HALOACETIC ACIDS (HAA5)	MCL, LRAA

Our water system tested a minimum of 60 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. With the microbiological samples collected, the water system collects disinfectant residuals to ensure control of microbial growth.

Disinfectant	Date	Highest RAA	Unit	Range	MRDL	MRDLG	Typical Source
CHLORAMINE	2019	2.7	ppm	0.78 - 4.6	4	4	Water additive used to control microbes.

In the tables below, we have shown the regulated contaminants that were detected. Chemical Sampling of our drinking water may not be required on an annual basis; therefore, information provided in this table refers back to the latest year of chemical sampling results.

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
ARSENIC	1/14/2019	0.68	0.68	ppb	10	0	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
ATRAZINE	7/31/2019	0.34	0.31 - 0.34	ppb	3	3	Runoff from herbicide used on row crops
BARIUM	1/14/2019	0.017	0.017	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	1/14/2019	0.051	0.051	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
HEXACHLOROCYCLOPENTADIENE	1/14/2019	0.067	0 - 0.067	ppb	50	50	Discharge from chemical factories
NITRATE-NITRITE	1/14/2019	0.1	0.1	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
GROSS BETA PARTICLE ACTIVITY	1/14/2019	2.64	2.64	pCi/l	50	0	Decay of natural and man-made deposits. Note: The gross beta particle activity MCL is 4 millirems/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

Lead and Copper	Date	90TH Percentile	Range	Unit	AL	Sites Over AL	Typical Source
LEAD	2017 - 2019	3	0 - 7	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Period	Highest LRAA	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	G.M. PLANT	2019	63	19.8 - 120.4	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	JEFFERSON JR HIGH SCHOOL	2019	57	20.9 - 82.6	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	MONROE CONFERENCE CENTER FRONT ENTRANCE	2019	57	27 - 80.5	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	NORTH 7TH AT K STREET	2019	59	21 - 96.6	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	NORTHEAST AT FILHIOL	2019	56	20.3 - 82	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	OLIVE AT NORTH 6TH STREET	2019	56	22 - 87.7	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	POINT OF ENTRY	2019	58	20.7 - 100	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	WOODS AT 14TH STREET	2019	57	22.1 - 92	ppb	60	0	By-product of drinking water disinfection
TTHM	G.M. PLANT	2019	46	17.2 - 89.9	ppb	80	0	By-product of drinking water chlorination
TTHM	JEFFERSON JR HIGH SCHOOL	2019	39	15.2 - 48	ppb	80	0	By-product of drinking water chlorination
TTHM	MONROE CONFERENCE CENTER FRONT ENTRANCE	2019	41	22.6 - 49.2	ppb	80	0	By-product of drinking water chlorination
TTHM	NORTH 7TH AT K STREET	2019	38	15 - 47.5	ppb	80	0	By-product of drinking water chlorination
TTHM	NORTHEAST AT FILHIOL	2019	40	15.9 - 46.2	ppb	80	0	By-product of drinking water chlorination
TTHM	OLIVE AT NORTH 6TH STREET	2019	39	16.4 - 48.1	ppb	80	0	By-product of drinking water chlorination
TTHM	POINT OF ENTRY	2019	41	14 - 51.5	ppb	80	0	By-product of drinking water chlorination
TTHM	WOODS AT 14TH STREET	2019	36	15.8 - 40.3	ppb	80	0	By-product of drinking water chlorination

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	SMCL
ALUMINUM	1/14/2019	0.59	0.59	MG/L	0.2
CHLORIDE	1/11/2016	12.7	12.7	MG/L	250
MANGANESE	1/14/2019	0.044	0.044	MG/L	0.05
PH	1/14/2019	7.9	7.9	PH	8.5
SULFATE	1/11/2016	23.2	23.2	MG/L	250

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CHLORIDE	1/11/2016	12.7	12.7	MG/L	250
MANGANESE	1/14/2019	0.044	0.044	MG/L	0.05
PH	1/14/2019	7.9	7.9	PH	8.5
ZINC	1/14/2019	0.079	0.079	MG/L	5

Unresolved Significant Deficiencies

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 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 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 can also come from gas stations, urban stormwater runoff, and septic systems.*

Radioactive Contaminants - *which can be naturally-occurring or be the result of oil and gas production and mining activities.*

Turbidity Calculations for 2019

Regulated Contaminants	Collection Date	Lowest % Value	Range	Unit	MCL	MCGL	Typical Source
Turbidity	9/23/2019	99%	99 - 100	NTU	0.3		Soil Runoff
Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCGL	Typical Source
Turbidity	04/21/2019	0.33	0.23 – 0.33	NTU	0.3		Soil Runoff

Unregulated Contaminants

Unregulated Contaminants	Collection Date	Average Concentration	Range	Unit
Manganese	6/20/2018	**3.90**	0 - 3.9	ug/L
	9/20/2018	**6.00**	0 - 6	ug/L
	12/5/2018	**15.80**	0 - 15.8	ug/L
Bromide	6/20/2018	**74.75**	35.5-114	ug/L
	9/20/2018	**150.4**	40.8 - 260	ug/L
	12/5/2018	**46.3**	30.4 - 62.2	ug/L
Total Organic Carbon	6/20/2018	**5575**	5570 - 5580	ug/L
	9/20/2018	**4775**	4040 - 5510	ug/L
	12/5/2018	**6015**	5250 - 6780	ug/L
HAA5	9/20/2018	**33.21**	32.1 - 34.5	ug/L
	12/5/2018	**95**	86.9 - 105.4	ug/L
HAA6Br	9/20/2018	**3.83**	3.56 - 4.03	ug/L
	12/5/2018	**11.73**	10.3 - 13.41	ug/L
HAA9	9/20/2018	**37.15**	35.66 - 38.53	ug/L
	12/5/2018	**109.21**	97.2 - 132.31	ug/L
Total Microcystin	6/12/2018			
	6/26/2018			
	7/12/2018			
	7/24/2018			
	8/15/2018	0	0	ug/L
	8/29/2018			
	9/11/2018			
	9/25/2018			
Cylindrospermopsin	6/26/2018			
	7/12/2018			
	7/24/2018			
	8/15/2018	0	0	ug/L
	8/29/2018			
	9/11/2018			
	9/25/2018			
Anatoxin-A	6/26/2018			
	7/12/2018			
	7/24/2018			
	8/15/2018	0	0	ug/L
	8/29/2018			
	9/11/2018			
	9/25/2018			

Note: "Turbidity is a measure of cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The major sources of turbidity include soil runoff."

"Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organism. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches."

Cryptosporidium Data

Monroe Water System conducted monthly source water monitoring for Cryptosporidium (Crypto) from January 2019 to September 2019. Of the nine (9) samples, no Crypto was detected in any of the samples.

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes
Cryptosporidium, the most common filtration methods cannot guarantee 100 percent removal. Our monitoring
indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease.

Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor
regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease,
and it may be spread through means other than drinking water.

++++++++++++++**Environmental Protection Agency Required Health Effects Language**++++++++++++++

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the **Safe Drinking Water Hotline (800–426–4791).**

There are no additional required health effects notices.

There are no additional required health effects violation notices.

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Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers.

We at the MONROE WATER SYSTEM work around the clock to provide top quality drinking water to every tap. We ask that all our customers help us protect and conserve our water sources, which are the heart of our community, our way of life, and our children's future. Please call our office if you have questions.

CITY OF MONROE
PUBLIC WORKS WATER SYSTEM

MAYOR
JAMES E. "JAMIE" MAYO

CITY COUNCIL MEMBERS

MR. DOUG HARVEY	District No. 1
MRS. GRETCHEN EZERNACK	District No. 2
MRS. JUANTA WOODS	District No. 3
MR. KENNETH WILSON	District No. 4
MR. EDDIE CLARK	District No. 5

We are pleased to present to you the Annual Water Quality Report for the year 2019. This report is designed to inform you about the quality of your water and services we deliver to you every day (Este informe con Jene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo en Jenda bien). Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Our water source(s) are listed below:

Source Name	Source Water Type	Source Water Body Name
OUACHITA RIVER SURFACE WATER INTAKE	Surface Water	OUACHITA RIVER
BAYOU DESIARD SURFACE WATER INTAKE	Surface Water	BAYOU DESIARD

In the tables below, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the following definitions:

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

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

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

Treatment Technique (TT) – *an enforceable procedure or level of technological performance which public water systems must follow to ensure control of a contaminant.*

Action level (AL) – *the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.*

Maximum contaminant level (MCL) – *the "Maximum Allowed" MCL is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.*

Maximum contaminant level goal (MCLG) – *the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLG's allow for a margin of safety.*

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 disinfectant 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.*

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.*

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