

City of Morgan City
985-385 -1770
PWS ID # 1101005

What's the Quality of My Water?

The City of Morgan City is pleased to share this water quality report with you. It describes to you, the customer, the quality of your drinking water. This report covers January 1 through December 31, 2016. The City of Morgan City's drinking water supply surpassed the strict regulations of both the State of Louisiana and the U.S. Environmental Protection Agency (EPA), which requires all water suppliers to prepare reports like this every year.

In 2016 our water department distributed **1,197,367,000 gallons** of water to our customers. Morgan City has two surface water sources, the IntraCoastal Waterway and the Atchafalaya River. Two independent raw water sources provide an alternative raw water supply in the event of deterioration or contamination of the raw water source in use.

Water plant operations are based on single stage clarification followed by filtration and disinfection.

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 SWAP, our water system had a susceptibility rating of medium. If you would like to review the SWAP, please feel free to contact City Hall @ 985-385-1770.

If you have any questions about this report or concerning your water utility, please contact Murphy Arcemont, Manager of Water and Wastewater Treatment, by calling 985-380-4658 or by writing to this address: PO Box 1218, Morgan City, LA 70381. We want our valued customers to be informed about their water utility. You can attend Regular City Council meetings on the 4th Tuesday of each month in the City Court House at 6:00 PM.

The U.S. Environmental Protection Agency (EPA) wants you to know:

In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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 that must provide the same protection for public health.

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

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, 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 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 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.

Water Conservation

Because Morgan City is surrounded by water, most people don't think about water conservation. But reducing your water usage can mean substantial savings in your water, sewer, and electric bill. Reducing water usage can also reduce the need for new or expanded wastewater treatment facilities. If every family in Morgan City reduces water use, the volume of water entering the Morgan City Wastewater Treatment Plant is reduced. Dollars saved by not expanding wastewater treatment facilities can be used to upgrade Morgan City's water treatment and distribution facilities. A family can decrease water use by up to 20% without major discomfort or expense. Fixing a steady faucet drip saves 20 gallons a day. Fixing a leaking toilet saves at least 200 gallons a day. You can test for a leaking toilet by adding food coloring to the tank. If any color appears in the toilet bowl after 30 minutes without flushing, you have a leak. You can also test for leaks in general by checking your water meter while no water is being used. If the meters dial moves, you have a leak. The following are some simple guidelines to conserve water:

Indoors

- *Wash only full loads of laundry or adjust water level to match the load
- *Take short showers instead of baths
- *Turn off water while brushing teeth, shaving, etc.
- *Check toilets, faucets, and pipes for leaks
- *To get warm water, turn on hot water first and then add cold water
- *Limit use of garbage disposals
- *Don't let water run while cleaning vegetables
- *Cook using only the amount of water necessary
- *Thaw frozen foods in the refrigerator or microwave rather than in running water
- *Use pans with tightly fitted lids to reduce evaporation
- *Wash only full loads in the dishwasher

Outdoors

- *Water during cool time of day to minimize evaporation
- *Avoid over watering and watering the pavement
- *Use soaker hoses to apply water slowly and directly to the soil
- *Clean driveways and sidewalks with a broom or blower rather than a hose
- *Mow as infrequently as possible with mower blades set at least 3" high (short grass requires more water to remain healthy)
- *Wash car with soap and water in a bucket - rinse using hose with shut-off nozzle
- *Check for and repair leaks in hoses and faucets
- *Add mulch to garden and landscape areas to reduce water demand
- *Avoid overcrowding of plants to reduce competition for water
- *Cover swimming pools when not used - covers save 90% of evaporation losses

2016 Annual Water Quality Report

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2016 Monitoring Results for the City of Morgan City

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised person 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 (1-800-426-4791).

During the period covered by this report we had no noted violations of drinking water regulations. No risks to health were involved.

Compliance Period 1/1/16 -12/31/16 There are no additional required health effects violation notices.

Contaminant	Unit	MCLG Health Goal	MCL EPA's Limits	Highest Level Detected	Range Detected	Violation (Yes / No) Sampled	Year 1 Sampled	Potential Source of Contamination
Microbiological Contaminants								
E. Coli		0	A routine sample and a repeat sample are total Coliform positive, and one I also fecal positive/E. Coli positive	1 Positive	NA	No	2016	Human and animal fecal waste
*Coliform TCR	Pos-Neg	0	No more than 1 positive per month	1 Positive	NA	No	2016	Naturally present in the environment.
Total Organic Carbon	ppm	NA	TT	1.48 LRAA	3.09 – 9.74	No	2016	Naturally present in the environment.
*The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percentages of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOG removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.								
Turbidity ²	NTU	NA	TT/ never more Than 1 NTU and less than or equal to.3 in 95% of samples	0.17	0.05 – 0.17	No	2016	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. The major sources of turbidity are soil runoff.
				Lowest monthly percentage of samples meeting limits:100%				
Inorganic Contaminants								
Copper	ppm	1.3	1.3 = AL	0.4 (90 th percentile)	0.10 – 0.7	No	2012-2014	Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservatives.
Fluoride	ppm	4	4	0.1	0.1	No	2016	Erosion of natural deposits. Water additive to promote strong teeth. Discharge from fertilizer and aluminum factories.
Lead	ppb	0	15 = AL	1 (90 th percentile)	1- 4	No	2012-2014	Corrosion of household plumbing systems. Erosion of natural deposits.
Dalapon	ppb	200	200	ND	ND	No	2016	Runoff from herbicide used on right of way
Nitrate-Nitrite	ppm	10	10	1.1	1.1	No	2016	Runoff from fertilizer use; leaching form septic tanks, sewage; erosion of natural deposits.
Arsenic	ppb	0	10	ND	ND	No	2016	Erosion of natural deposits. Runoff.
Radionuclide Gross Beta Particle Activity	pCi/l	0	50	0	0	No	2016	Decay of natural and man made deposits.
Synthetic Organic Contaminants								
Di(2-Ethylhexyl) Phthalate	ppb	0	.5	1.16	1.16	No	2014	Discharge from chemical factories.
Volatile Organic Contaminants and Disinfection By Products								
Carbon Tetrachloride	ppb	0	5	ND	ND	No	2016	Discharge from chemical plants and industrial activities.
Chlorine Dioxide	ppb	800	800	19	2 - 19	No	2016	Water additive used to control microbes.
Chlorite	ppm	0.8	1	.286	.04 - .286	No	2016	Byproduct of drinking water chlorination.
Chloramines (Residual) ³	ppm	MRDLG = 4	MRDL = 4	2.58 HRAA	0.5 – 3.90	No	2016	Water additive used to control microbes.
*Haloacetic Acids (HAA5)	ppb	0	60	27.3 LRAA	9.80 – 38	No	2016	Byproduct of drinking water chlorination.
Total Trihalomethane (TTHMs)	ppb	0	80	28.5 LRAA	21 – 31	No	2016	Byproduct of drinking water chlorination.

The City of Morgan City has performed tests on the source water for the presence of cryptosporidium. Cryptosporidium has not been detected in any of our water samples tested. 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, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-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.

Non-Regulated Substances: Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.			
Substance	Unit	Average level Detected	Year Sampled
Alkalinity	ppm	64	2016
Aluminum	ppm	ND	2016
Barium	ppm	.051	2016
Cadmium	ppm	ND	2016
Iron	ppm	ND	2016
Manganese	ppm	.0077	2016
pH	su	7.1	2016
Sodium	ppm	12.2	2016
Sulfate	ppm	25	2016
Chloride	ppm	20	2016
UCMR3 Samples			
Chlorate	ug/l	230	2014
Hexavalent Chromium	ug/l	.034	2014
Strontium	ug/l	110	2014
Vanadium	ug/l	0.77	2014
	ug/l		
	ug/l		

Additional info on UCMR3 at <http://www.drinktap.org/home/water-information/water-quality/ucmr3.aspx> or get results by calling 985-385-1770.

Definitions:

Maximum Contaminant Level (MCL): 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 (MCLG): 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.

Notes:

- 1) The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.
- 2) 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.
- 3) Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort and anemia.
- 4) Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
- 5) Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

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.

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.

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

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

90th Percentile: 90% of samples are equal to or less than the number in the chart.

NTU (Nephelometric Turbidity Units): A measure of clarity. NA: Not applicable.

ND: Not detectable at testing limits.

PPB (parts per billion): micrograms per liter (ug/).

PPM (parts per million): milligrams per liter (mg/l).

HARA: Highest Annual Rolling Average.

LRAA: Locational Running Annual Average.

CDC: Centers for Disease Control.

EPA: Environmental Protection Agency.

su: Standard unit.

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. The City of Morgan City 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>.