

City of Bellaire

Annual Drinking Water Quality Report 2018



**OUR DRINKING WATER IS RATED SUPERIOR
CITY OF HOUSTON WATER IS RATED SUPERIOR
MEETS OR EXCEEDS ALL FEDERAL (EPA) DRINKING
WATER REQUIREMENTS**

PWS ID # TX1010004

City of Bellaire



Public Participation Opportunities:

Public input concerning the City of Bellaire water system may be made at:
4401 Edith
Bellaire, TX
Monday - Friday
8:00 am - 5:00 pm
Contact: City of Bellaire
713-662-8150
<http://ci.bellaire.tx.us>

En Español:

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. 713-662-8170 para hablar con una persona bilingüe en español.

*In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2017, our system lost an estimated **56,370,600 gallons** of water. If you have any questions about the water loss audit please call 713-662-8150.*

DROUGHT CONTINGENCY AND WATER CONSERVATION PLAN

The City of Bellaire has a Drought Contingency Plan should a drought or other event occur. Here are the stages:

Stage 1—Annual Drought and Conservation Awareness Campaign

From May 1 through October 31 of each year, the City of Bellaire seeks to increase customer awareness of water conservation and encourage the most efficient use of water.

Stage 2—MILD Water Shortage Conditions

When Average Daily Water Usage reaches 65% of safe distribution capacity for three (3) consecutive days, water customers are requested to **voluntarily** limit the irrigation of landscaped areas to even-numbered days for customers with a street address ending in an even number, and odd-numbered days for water customers with a street address ending in an odd number, and to irrigate landscapes only between the hours of 12:00 a.m. to 3:00 a.m. and 9:00 p.m. to 12:00 a.m. on designated watering days.

Stage 3—MODERATE Water Shortage Conditions

When Average Daily Water Usage reaches 70% of safe distribution capacity for three (3) consecutive days, the following **mandatory** lawn-watering schedule shall be implemented. Customers with even numbered addresses may water on Sundays and Thursdays. Customers with odd numbered addresses may water on Saturdays and Wednesdays. Watering shall occur only between the hours of 12:00 a.m. to 3:00 a.m. and 9:00 p.m. to 12:00 a.m. on designated watering days.

Stage 4—SEVERE Water Shortage Conditions

When Average Daily Water Usage reaches 80% of safe distribution capacity for two (2) consecutive days, the City will **ban** the use of water not essential for public health or safety including: Watering lawns and shrubs, street washing, washing driveways and automobiles, water hydrant flushing, filling swimming pools, athletic field watering.

After five (5) consecutive days of water usage below the triggering factors of the Stage, the Drought Contingency Plan reverts to the previous Stage.

Some helpful tips to conserve water:

- Do not water lawns daily. (Do not overwater or allow water to run off to street; change timers on sprinklers to water after midnight.)

- Check your swimming pool to make sure it is not overfilling.
- Check for and repair detectible water leaks as soon as possible.
- Keep showers under five minutes.
- Turn water off while brushing teeth.
- Replace older-model showerheads and faucets.
- Limit washing vehicles.

Your cooperation will help ensure that water supplies are maintained at maximum levels and prevent the need to impose more restrictive measures to conserve water.

For more information, go to <http://ci.bellaire.tx.us/index.aspx?NID=1009>

Source of Drinking Water

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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 at **(800)426-4791**.

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 salt 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.

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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Secondary Constituents: Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern.

Where Do We Get Our Drinking Water?

The source of drinking water used by the City of Bellaire is 53% Surface Water supplied by the City of Houston's East Water Purification Plant, and 47% Ground Water from the Evangeline Aquifer. A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies. Some of this source water assessment is available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

OUR DRINKING WATER IS REGULATED: This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U. S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

About this report: The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are solely based on this susceptibility and previous sample data. Any detections may be found in this Consumer Confidence Report.

Regulated Contaminants									
				City of Bellaire		City of Houston			
Inorganic Contaminants	YEAR	MCL	MCLG	HIGHEST LEVEL	RANGE	HIGHEST LEVEL	RANGE	VIOLATION	LIKELY SOURCE OF CONTAMINATION
					Min - Max Level		Min - Max Level		
Arsenic (ppb)	2017	10	0	5.4	0 - 5.4	-	-	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
While your drinking water meets EPA standards for Arsenic, it does contain low levels of Arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such									
Barium (ppm)	2017	2	2	0.16	0.0794 - 0.16	0.104	0.0424 - 0.104	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	2017	4	4	0.66	0.35 - 0.66	0.34	0.24 - 0.34	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	2018	10	10	0.33	0.01 - 0.33	0.27	0.27	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite (ppm)	2015	1	1	0.01	0 - 0.01	-	-	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Cyanide	2017	0.2	0.2	-	-	0.11	0.05 - 0.11	N	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.
Turbidity	YEAR	MCL	LOWEST MONTHLY % <0.3 NTU		AVERAGE	ANNUAL MAX	VIOLATION		LIKELY SOURCE OF CONTAMINATION
Turbidity (NTU)	2018	0.3	98%		0.11	0.48	N		Soil runoff.
Radioactive Contaminants	YEAR	MCL	MCLG	HIGHEST LEVEL	RANGE	AVERAGE	RANGE	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Combined Radium 226-228 (pCi/L)	2017	5	0	1.39	1.39 - 1.39	-	-	N	Erosion of natural deposits.
Gross alpha (pCi/L)	2017	15	0	6.7	0 - 6.7	-	-	N	Erosion of natural deposits.
Gross beta (pCi/L)	2017	50	0	-	-	2	0 - 4	N	Erosion of natural deposits.
Uranium (ug/L)	2017	30	0	1.1	0 - 1.1	-	-	N	Erosion of natural deposits.
Synthetic Organic Contaminants	YEAR	MCL	MCLG	HIGHEST LEVEL	RANGE	HIGHEST LEVEL	RANGE	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Atrazine (ppb)	2018	3	3	0.19	0 - 0.19	0.32	0.17 - 0.32	N	Runoff from herbicide used on row crops.
Simazine (ppb)	2018	4	4	0.07	0 - 0.07	0.12	0 - 0.12	N	Runoff from herbicide used on row crops.
Volatile Organic Compounds	YEAR	MCL	MCLG	HIGHEST LEVEL	RANGE	HIGHEST LEVEL	RANGE	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Di(2-ethylhexyl) phthalate (ppb)	2018	6	0	-	-	0.95	0 - 0.95	N	Discharge from rubber and chemical factories.
Xylenes (ppm)	2018	10	10	0.0006	0 - 0.0006	-	-	N	Discharge from petroleum factories. Discharge from chemical factories.
Disinfection By-products	YEAR	MCL	MCLG	HIGHEST LEVEL	RANGE	HIGHEST LEVEL	RANGE	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Total Trihalomethanes (TTHMs) (ppb)	2018	80	None	35	0 - 42.1	-	-	N	By-product of drinking water disinfection.
Haloacetic Acids (HAAs) (ppb)	2018	60	None	33	0 - 41.4	-	-	N	By-product of drinking water disinfection.
Disinfectant	YEAR	MRDL	MRDLG	AVERAGE	RANGE	AVERAGE	RANGE	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Chloramines and Chlorine (ppm)	2018	4	4	1.478	0.89 - 3.50	-	-	N	Water additive used to control microbes.
Total Coliform	Reported monthly tests found no Coliform bacteria.								
Total Coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease causing organisms; therefore, the absence from water is a good indication that the water is microbially safe for									
Lead and Copper	YEAR	MCLG	ACTION LEVEL	90th PER-CENTILE	# of SITES OVER AL	90th PER-CENTILE	# of SITES OVER AL	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Lead (ppb)	2018	0	15	0.78	0	0	0	N	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper (ppm)	2018	1.3	1.3	0.312	0	0.0042	0	N	Corrosion of household plumbing systems; Erosion of natural deposits.

ALL Drinking Water May Contain Contaminants

When drinking water meets federal standards there may not be any health benefits to purchasing bottled water or point of use devices. 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 at 1-800-426-4791.

SPECIAL NOTICE: You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk for infections. You should seek advice about drinking water from your physician or health care provider.

DEFINITIONS AND ABBREVIATIONS

Maximum Contaminant Level (MCL): The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLG 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 health risk. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in 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 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 contamination.

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

Picocuries per liter (pCi/L): A measure of radioactivity

Parts per million (ppm): The equivalent of milligrams per liter (mg/L) is analogous to 1 minute in 2 years.

Parts per billion (ppb): The equivalent of micrograms per liter (ug/L) is analogous to 1 minute in 32 years.

Level 1 Assessment: A Level 1 assessment is a 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.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify 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.

NA: Not applicable.