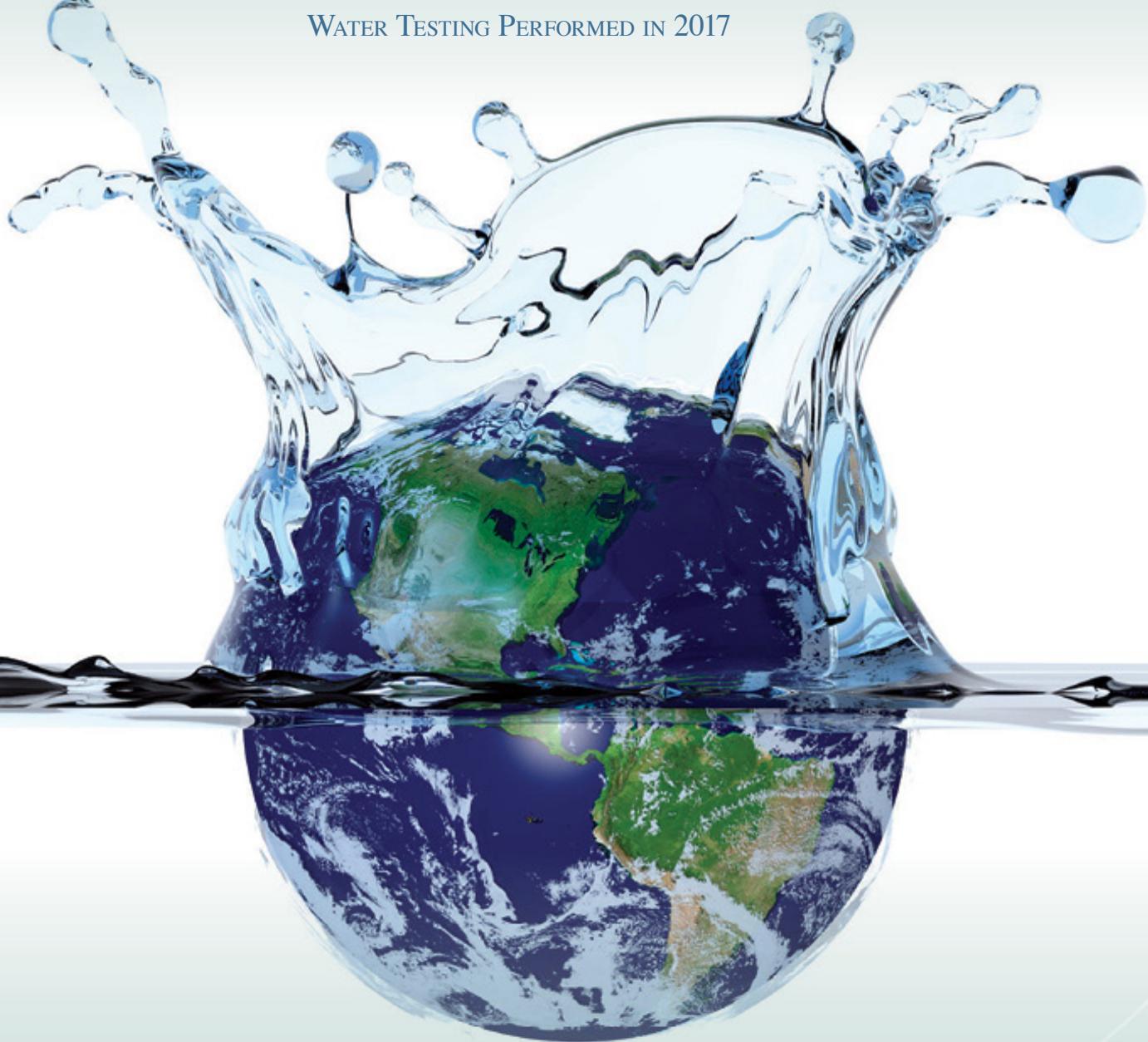


# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2017



***Presented By***  
**Harris Co. WCID #1**

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (281) 426-2115.

PWS ID#: 1010159

## Quality First

Once again we are pleased to present our annual water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet Tuesday following the second Monday of each month, beginning at 6 p.m., at the Water Office, 125 San Jacinto, Highlands, Texas.

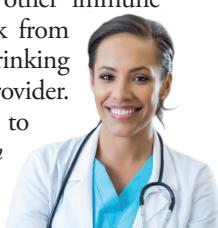
## Where Do We Get Our Drinking Water?

The source of drinking water for Harris County WCID #1 is purchased surface water blended with 20 percent groundwater from the Chicot Aquifer. Our main well site is located on E. Houston Street in Highlands, Texas. Purchased water, which comes from the Trinity River, is processed by Baytown Area Water Authority on Thompson Road.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://www.tceq.texas.gov/gis/swaview>.

## Important Health Information

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 from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.



## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. 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 these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems;

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

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on the taste, odor, or color of drinking water, please contact our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Lead in Home Plumbing

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. This water supply is responsible for providing high-quality drinking water, but we 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the 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.

Further details about sources and source water assessments are available on Drinking Water Watch at <http://dww2.tceq.texas.gov/DWW/>.

Our Water System ID # is TX1010159. Baytown Area Water Authority's Water System ID # is TX1011742.

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 based on this susceptibility and previous sample data. Any detections of these contaminants can be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Mark Taylor.

Water treatment is a complex, time-consuming process.

## FOG (Fats, Oils, and Grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

### NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

### ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

## BY THE NUMBERS



The number of gallons of water produced daily by public water systems in the U.S.

**34**  
BILLION

**1**  
**MILLION** The number of miles of drinking water distribution mains in the U.S.

The amount of money spent annually on maintaining the public water infrastructure in the U.S.

**135**  
BILLION

**300**  
**MILLION** The number of Americans who receive water from a public water system.

The age in years of the world's oldest water, found in a mine at a depth of nearly two miles.

**2**  
BILLION

**151**  
**THOUSAND** The number of active public water systems in the U.S.

The number of highly trained and licensed water professionals serving in the U.S.

**199**  
THOUSAND

## Water Loss Audit

According to the Water Use Survey submitted to the Texas Water Development Board for the time period of January through December 2017, our system took in an estimated 239.8 million gallons of water. We sold an estimated 198.3 million gallons of water to our customers. Our system lost an estimated 41.5 million gallons of water in 2017, 5.8 million more than last year. If you have any questions about the water loss, please call (281) 426-2115.

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Mark Taylor, Harris County WCID #1 General Manager, at (281) 426-2115.

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The state recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES									
Harris County WCID #1					Baytown Area Water Authority				
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Violation	Typical Source
Atrazine (ppb)	2017	3	3	ND	NA	0.17	NA	No	Runoff from herbicide used on row crops
Barium (ppm)	2016	2	2	0.0474	NA	0.0598 <sup>1</sup>	NA <sup>1</sup>	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines (ppm)	2017	[4]	[4]	1.78	0.53–3.80	3.66	1.84–4.77	No	Water additive used to control microbes
Combined Radium (pCi/L)	2016	5	0	1.5	NA	NA	NA	No	Erosion of natural deposits
Fluoride (ppm)	2017	4	4	0.75	NA	0.76	0.49–0.89	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] <sup>2</sup> (ppb)	2017	60	NA	31	3.1–36.2	26	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2017	10	10	0.81	NA	0.022	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2016	4	4	NA	NA	0.08	NA	No	Herbicide runoff
TTHMs [Total Trihalomethanes] <sup>2</sup> (ppb)	2017	80	NA	43	17.4–50.8	40.4	NA	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2017	TT	NA	NA	NA	5.13	3.86–5.13	No	Naturally present in the environment
Turbidity <sup>3</sup> (NTU)	2017	TT	NA	NA	NA	0.2	0.1–0.2	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2017	TT = 95% of samples meet the limit	NA	NA	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

Substance (Unit of Measure)	Year Sampled	AL	MCLG	Amount Detected (90th%tile)	Sites Above AL / Total Sites	Violation	Typical Source
Copper (ppm)	2017	1.3	1.3	0.41	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2017	15	0	4.7	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

## SECONDARY SUBSTANCES

				Harris County WCID #1		Baytown Area Water Authority			
Substance (Unit of Measure)	Year Sampled	SCL	MCLG	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Violation	Typical Source
Iron (ppb)	2016	300	NA	23	NA	NA	NA	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2016	50	NA	18.6	NA	9 <sup>1</sup>	NA <sup>1</sup>	No	Leaching from natural deposits
Sulfate (ppm)	2017	300	NA	2	NA	29	NA	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids [TDS] (ppm)	2017	1,000	NA	275	NA	216	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	2017	5	NA	ND	NA	0.0514	NA	No	Runoff/leaching from natural deposits; Industrial wastes

## UNREGULATED SUBSTANCES<sup>4</sup>

			Harris County WCID #1		Baytown Area Water Authority			
Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Typical Source		
Bromodichloromethane (ppb)	2017	18.3	3.4–18.3	14	NA	By-product of drinking water disinfection		
Bromoform (ppb)	2017	5.2	ND–5.2	NA	NA	By-product of drinking water disinfection		
Chloroform (ppb)	2017	29.7	1.7–29.7	24	NA	By-product of drinking water disinfection		
Dibromochloromethane (ppb)	2017	7.4	1.8–7.4	4.3	NA	By-product of drinking water disinfection		
Sodium (ppm)	2016	91.9	NA	27.9 <sup>1</sup>	NA <sup>1</sup>	Erosion of natural deposits		

## UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3) - HARRIS COUNTY WCID #1<sup>4</sup>

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High
Chromium-6 (ppb)	2013	0.17	ND–0.17
Molybdenum (ppb)	2013	3.93	3.1–3.93
Strontium (ppb)	2013	333	70–333
Vanadium (ppb)	2013	0.79	ND–0.79

<sup>1</sup> Sampled in 2017.

<sup>2</sup> LRAA for 1ST Qt. 2017, DBP2.

<sup>3</sup> Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

<sup>4</sup> Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of monitoring unregulated contaminants is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

## Definitions

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

**LRAA (Locational Running Annual Average):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

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

**MCLG (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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**SCL (Secondary Constituent Level):** SCLs are established to regulate the aesthetics of drinking water like appearance, taste and odor.

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