

# ANNUAL WATER QUALITY REPORT

WATER TESTING  
PERFORMED  
IN 2014



*Presented By*  
**Harris County WCID #1**

## Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

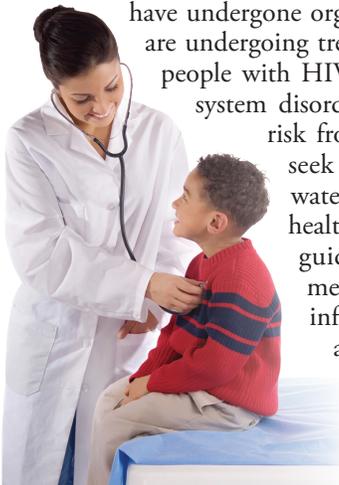
Please visit our Web site: [www.hcwid1.com](http://www.hcwid1.com).

Request for confidentiality: Customers may request confidentiality of their utility account upon payment of a one-time fee of \$5.00. (Texas Utility Code §182.052 and §182.053)

Please let us know if you ever have any questions or concerns about your water.

## 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 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.

## 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 comes from the Trinity River and is processed by Baytown Area Water Authority on Thompson Road.

## 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).

## Water Loss

In the Water Use Survey submitted to the Texas Water Development Board for the time period of Jan - Dec 2014, our system took in an estimated 290.4 million gallons of water. We sold an estimated 191.2 million gallons of water to our customers. Our system lost an estimated 99.2 million gallons of water in 2014. If you have any questions about the water loss, please call 281-426-2115.

## 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.

According to the Source Water Assessment Plan, our water system had a susceptibility rating of low to high. If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours.

Further details about sources and source water assessments are available on Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW/>. Our Water System ID # is TX1010159

## Community Participation

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



## How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria before it was filled with tap water, the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

## 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.





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.

## Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less 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 EPA's Unregulated Contaminant Monitoring Regulation (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.

Monthly testing found no total coliform bacteria or fecal coliform bacteria.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Harris County WCID #1		Baytown Area Water Authority		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Atrazine (ppb)	2014	3	3	NA	NA	0.14	NA	No	Runoff from herbicide used on row crops
Barium (ppm)	2011	2	2	0.048	NA	0.0437 <sup>1</sup>	NA <sup>1</sup>	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters <sup>2</sup> (pCi/L)	2009	50	0	NA	NA	5.6	NA	No	Decay of natural and man-made deposits
Chloramines (ppm)	2014	[4]	[4]	1.81	0.50–3.95	3.04	1.0–4.3	No	Water additive used to control microbes
Chromium (ppb)	2013	100	100	0.32	ND–0.32	NA	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	2014	4	4	0.72	NA	0.89	0.49–0.89	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA]–Stage 2 (ppb)	2014	60	NA	39	20.4–39	24.1	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2014	10	10	0.44	NA	0.67	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2014	1	1	0.05	NA	NA	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	43.6	32.6–43.6	33.8	NA	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2014	TT	NA	NA	NA	5.35	4.43–5.53	No	Naturally present in the environment
Turbidity <sup>3</sup> (NTU)	2014	TT	NA	NA	NA	0.27	0.14–0.27	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT=95% of samples <0.3 NTU	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)	2013	1.3	1.3	0.426	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2013	15	0	1.75	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	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2013	50	NA	150	4.3–150	17.3 <sup>1</sup>	NA	No	Leaching from natural deposits
pH (Units)	2011	6.5–8.5	NA	8.2	NA	7.2 <sup>1</sup>	NA	No	Naturally occurring
Sulfate (ppm)	2011	250	NA	2	NA	40 <sup>1</sup>	NA	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids [TDS] (ppm)	2011	500	NA	274	NA	245 <sup>1</sup>	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	2008	5	NA	NA	NA	0.0497	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)	2014	16.3	12.3–16.3	13	NA	By-product of drinking water disinfection			
Bromoform (ppb)	2014	1.2	ND–1.2	NA	NA	By-product of drinking water disinfection			
Chloroform (ppb)	2014	21.8	14.8–21.8	39	NA	By-product of drinking water disinfection			
Dibromochloromethane (ppb)	2014	6.6	5.3–6.6	2.7	NA	By-product of drinking water disinfection			

<sup>1</sup> Sampled in 2014.

<sup>2</sup> The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

<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 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.

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

				Harris County WCID #1
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	2.1–3.93	
Strontium (ppb)	2013	333	70–333	
Vanadium (ppb)	2013	0.79	ND–0.79	

## Definitions

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

**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).

**SMCL (Secondary Maximum Contaminant Level):** SMCLs are established to regulate the aesthetics of drinking water like taste and odor.

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