





# ANNUAL WATER QUALITY REPORT

# Reporting Year 2023



## Presented By Harris County WCID #1

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



#### **Our Commitment**

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2023. Included are details about your sources of water, what it contains, and how it compares to standards set by regulatory agencies. 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 and providing you with this information because informed customers are our best allies.

#### **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 dww2.tceq.texas.gov/ DWW/. Our water system ID is TX1010159; Baytown Area Water Authority's ID is TX1011742.

The Texas Commission on Environmental Quality (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 may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Mark Taylor at (281) 426-2115.

#### **Important Health Information**

Some people 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. These people should seek advice about drinking

water from their 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.



#### **Count on Us**

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a

wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:



- Operating and maintaining equipment to purify and clarify water.
- Monitoring and inspecting machinery, meters, gauges, and operating conditions.
- Conducting tests and inspections on water and evaluating the results.
- Maintaining optimal water chemistry.
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels.
- Documenting and reporting test results and system operations to regulatory agencies.
- Serving our community through customer support, education, and outreach.

So the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

**QUESTIONS?** For more information about this report, or for any questions relating to your drinking water, please call Mark Taylor, General Manager, at (281) 426-2115.

#### Where Do We Get Our Drinking Water?

The source of drinking water for Harris County WCID #1 is purchased surface water blended with up to 50 percent groundwater from the Chicot Aquifer. Our well sites are located on East Houston Street and North Battlebell Road in Highlands. Purchased water comes from the Trinity River and 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 at tceq.texas.gov/gis/ swaview.

#### 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 two minutes before using water



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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 at (800) 426-4791 or www.epa.gov/safewater/lead.

#### Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board during the year covered by this report, our system lost an estimated 72.3 million gallons of water. If you have any questions about the water loss audit, please call Mark Taylor, General Manager, at (281) 426-2115.

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#### **Community Participation**

You are invited to participate in our public forum and voice your concerns about your drinking water. We

meet on the Tuesday following the second Monday of each month at 6:00 p.m. at the water office, 125 San Jacinto Street, Highlands.

#### Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (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, which 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 which 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.

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#### **Test Results**

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not 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 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.

The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set (unless a TOC violation is noted in the Violation column).

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)	2023	3	3	NA	NA	0.16	0.1–0.16	No	Runoff from herbicide used on row crops		
Barium (ppm)	2023	2	2	0.0455	NA	0.0497	0.0422–0.0497	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits		
Beta/Photon Emitters (pCi/L)	2021	50 <sup>1</sup>	0	NA	NA	6.8	4.4–6.8	No	Decay of natural and human-made deposits		
Chloramines (ppm)	2023	[4]	[4]	2.13 <sup>2</sup>	0.62–3.56	3.59	1.4–5.2	No	Water additive used to control microbes		
Chlorite (ppm)	2022	1	0.8	NA	NA	0.163 ND-0.163		No	By-product of drinking water disinfection		
Combined Radium (pCi/L)	2021	5	0	NA	NA	1.5	NA-1.5	No	Erosion of natural deposits		
Cyanide (ppb)	2023	200	200	NA	NA	130	ND-130	No	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories		
Fluoride (ppm)	2023	4	4	0.74	0.66–0.74	0.54	NA-0.54	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories		
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2023	60	NA	49 <sup>3</sup>	18.6–49	20.1	NA-20.1	No	By-product of drinking water disinfection		
Nitrate (ppm)	2023	10	10	0.37	NA	0.44	0.30-0.44	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits		
Simazine (ppb)	2023	4	4	NA	NA	0.17	0.09-0.17	No	Herbicide runoff		
Total Coliform Bacteria (positive samples)	2023	ΤT	NA	1	NA	0	NA	No	Naturally present in the environment		
TTHMs [total trihalomethanes]-Stage 2 (ppb)	2023	80	NA	61.44	31.4–61.4	12.5	NA-12.5	No	By-product of drinking water disinfection		
<b>Turbidity</b> <sup>5</sup> (NTU)	2023	ΤT	NA	NA	NA	0.45	NA	No	Soil runoff		
<b>Turbidity</b> (lowest monthly percent of samples meeting limit)	2023	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										
			Harris County WCID #1		Baytown Area V	later Authority				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE	
Copper (ppm)	2021	1.3	1.3	0.542	0/20	NA	NA	No	Corrosion of household plumbing systems; Erosion of natural deposits	

<sup>1</sup>The MCL for beta particles is 4 millirems per year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

<sup>2</sup>Annual average.

- <sup>3</sup>Locational running annual average for fourth quarter 2023 was 40 ppb.
- <sup>4</sup>Locational running annual average for fourth quarter 2023 was 50 ppb.
- <sup>5</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.

### BY THE NUMBERS -

# 5.1

The dollar value needed to keep water, wastewater, and stormwater systems in good repair.

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How often in minutes a water main breaks.



The gallons of drinking water lost each year to faulty, aging, or leaky pipes.

#### 12 THOUSAND

The average amount in gallons of water used to produce one megawatt-hour of electricity.



The amount in gallons of water used to meet U.S. electric power needs in 2020.

33

The percentage of water sector employees who will be eligible to retire in 2033.

#### Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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

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