

ANNUAL WATER QUALITY REPORT

Reporting Year 2023

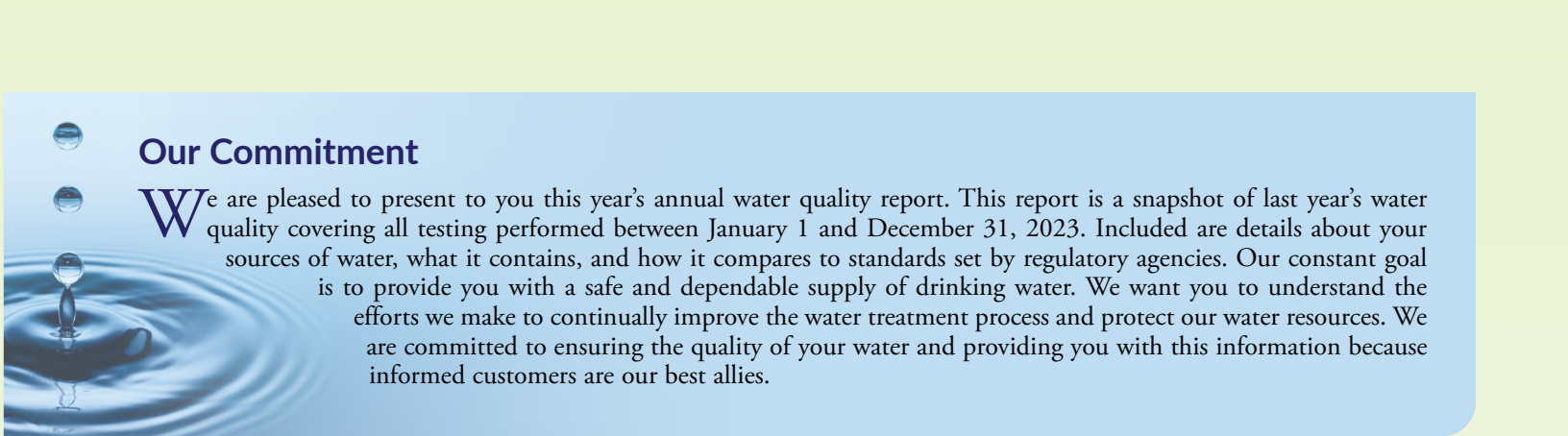


Presented By
Memorial Villages
Water Authority



Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono (713) 465-8318.

PWS ID#: TX1010148



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.

Lead in Home Plumbing

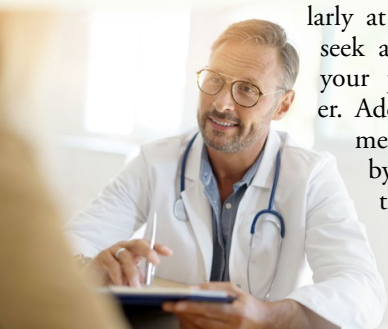
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high-quality drinking 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 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 [epa.gov/safewater/lead](https://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 200.9 million gallons of water. If you have any questions about the water loss audit, please call (713) 465-8318.

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.



Safeguard Your Drinking Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain it to reduce leaching to water sources, or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use U.S. EPA's Adopt Your Watershed to locate groups in your community.
- Organize a storm drain stenciling project with others in your neighborhood. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.



**When the well is dry, we
know the worth of water."**

—Benjamin Franklin

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Trey Cantu, General Manager at (713) 465-8318.

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.



Fats, Oils, and Grease (FOG)

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 FOG down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a wastebasket.

ALWAYS:

- Scrape and collect FOG 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.



Where Does My Water Come From?

Our drinking water comes from two sources. One source is groundwater drawn from the Evangeline Aquifer in Harris County. The other source is surface water received from the City of Houston. Combined, our treatment facilities provide roughly 1.3 billion gallons of clean drinking water every year.



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							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2023	3	3	0.14	0.13–0.15	No	Runoff from herbicide used on row crops
Barium (ppm)	2023	2	2	0.064	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2023	[4]	[4]	3.07	0.50–5.00	No	Water additive used to control microbes
Fluoride (ppm)	2023	4	4	0.24	0.23–0.27	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 1 (ppb)	2023	60	NA	19.9	3.3–39.1	No	By-product of drinking water disinfection
Nitrate (ppm)	2023	10	10	0.46	0.43–0.5	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2023	4	4	0.13	0.13–0.14	No	Herbicide runoff
TTHMs [total trihalomethanes]–Stage 1 (ppb)	2023	80	NA	28.9	4.9–41.7	No	By-product of drinking water disinfection
Turbidity ¹ (NTU)	2023	TT	NA	0.52	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 %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	1.3	1.3	0.2977	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2023	15	0	7.4	1/20	No	Lead service lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

Community Participation

Public input concerning the water system can be made at regularly scheduled board meetings, generally held on the second Tuesday of each month at 7:00 p.m. at the Water Authority Building, 8955 Gaylord Drive, Houston.



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.

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.

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): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2023	200	NA	38.0	NA	No	Erosion of natural deposits; Residual from some surface water treatment processes
Chloride (ppm)	2023	300	NA	0.046	0.043–0.048	No	Runoff/leaching from natural deposits
Iron (ppb)	2023	300	NA	13	NA	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2023	50	NA	6.4	NA	No	Leaching from natural deposits
Sulfate (ppm)	2023	300	NA	46	44–49	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids [TDS] (ppm)	2023	1,000	NA	254	251–257	No	Runoff/leaching from natural deposits

¹ Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of disinfectants.

BY THE NUMBERS



5.1 TRILLION

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



2

How often in minutes a water main breaks.



1.7 TRILLION

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.



47.5 TRILLION

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 by 2033.

Source Water Assessment

The Texas Commission on Environmental Quality (TCEQ), the state regulatory agency, completed an assessment of your source water, and the 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 Confidence Report.

Further details about sources and source water assessments are available from Drinking Water Watch at dww2.tceq.texas.gov/DWW/. If you would like a copy of our assessment, please feel free to contact our office during regular business hours at (713) 465-8318.



Think before You Flush!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of our waterways by disposing responsibly. To find a convenient drop-off location near you, please visit bit.ly/3IeRyXy.