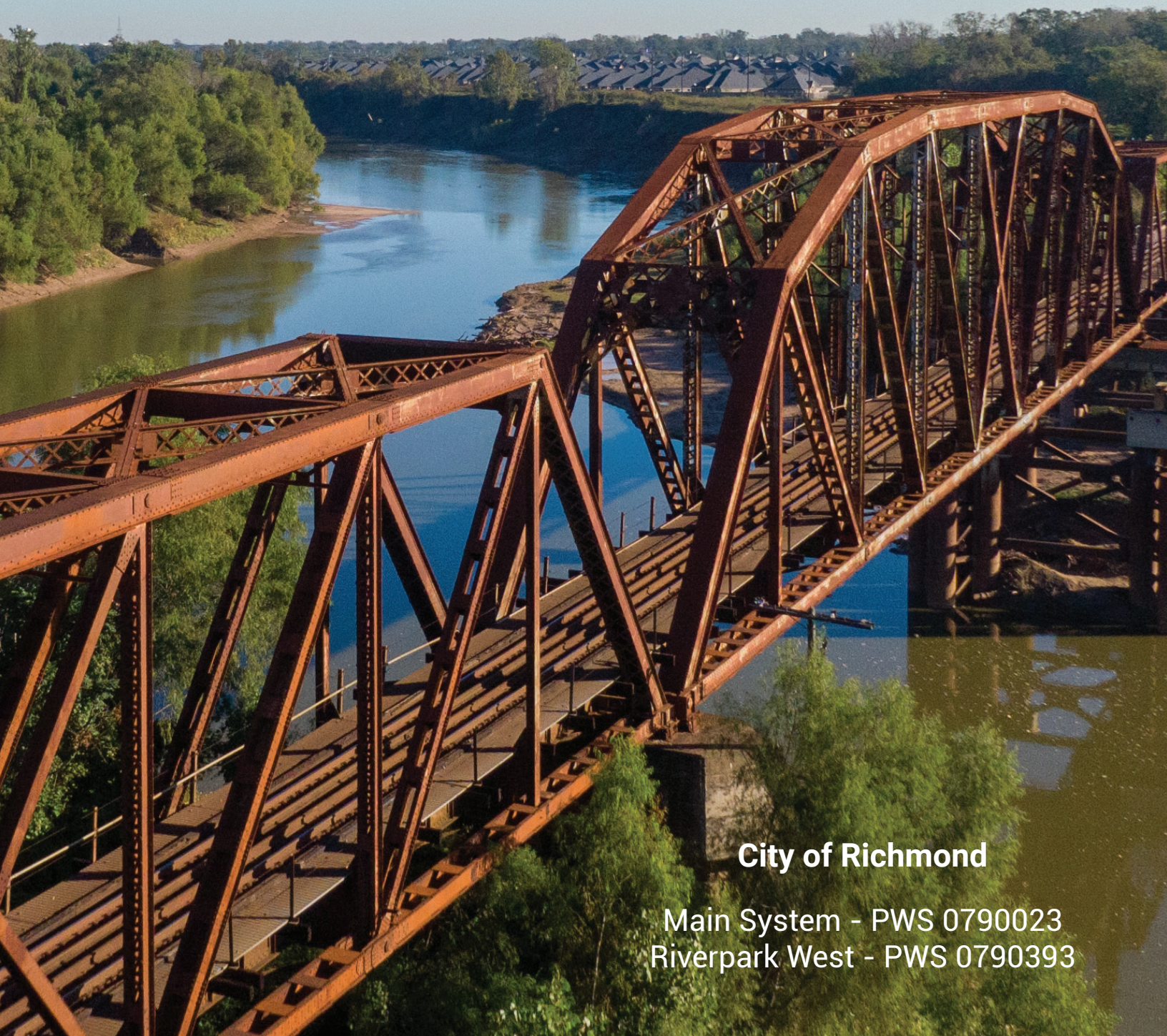
RICHMOND
EST. TEXAS 1837

2022 WATER QUALITY REPORT



City of Richmond

Main System - PWS 0790023
Riverpark West - PWS 0790393

City Manager's Message

Dear Customers,

We are pleased to share with you this year's Drinking Water Quality Report. My hope is that it will assist in answering your questions regarding the quality of the tap water you use every day and that you will gain a greater understanding of the extraordinary commitment involved in its uninterrupted delivery.

It is our goal to share this report as a testament to the achievement and collaboration of all of our staff over the last year. The City of Richmond provides water and wastewater services to its customers and to a number of adjoining Municipal Utility Districts (MUD's). As part of the 2022 Consumer Confidence Report, the City of Richmond's water quality results are included for the City of Richmond's distribution system, including Fort Bend MUD 187 - Del Webb, 207 - George Foundation, 215 - Veranda and Williams Ranch MUD 1. It includes results specific to MUDs that the City supplies water to and operates but have unique ID numbers, such as Fort Bend County MUD 121 – Riverpark West.

This year the City of Richmond was honored with the Watermark award for our 2021 Consumer Confidence Report at the Annual Texas Section American Water Works Association (TSAWWA) 2023 Conference. This award was presented to Richmond in the category of Annual Reports, Water Quality Reports and Brochures.

For more information regarding the quality of the water in your community, please read this report and visit www.richmondtx.gov.

Sincerely,

Terri Vela

Terri Vela
City Manager

Water & You

Water is Life. Our bodies rely on water and it helps our blood carry oxygen to cells, is essential to our immune system to fight off illness, helps us digest food, and keeps our temperature normal.

Water also keeps communities healthy, cities running and economies growing. Yet we often take it for granted. We turn on the tap, and like magic, water is available to us! This report is about that magic and where Richmond's drinking water comes from, how it gets to you, what it contains, and its excellent quality.

The City of Richmond is proud to produce this report for our customers every year. We hope that you'll read it and share the great news about Richmond's drinking water with your friends and family.

City of Richmond Earned a Watermark Award for Communication Excellence from the Texas Section - American Water Works Association and the Water Environment Association of Texas.

The Water Quality Report for January 1 to December 31, 2022

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

Source Water Assessment Reports

TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system please contact Public Works at (281)342-0559. Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (281)342-0559.

Surface Water Treatment Plant Microfiltration Membranes

Information about your Drinking Water

The City of Richmond Water Utilities goal and responsibility is to provide you safe and reliable drinking water. Our drinking water is obtained from surface water and ground water sources. Our ground water comes from the Gulf Coast Aquifer and our surface water comes from the Brazos River. 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 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. We hope this information helps you become more knowledgeable about what is in your drinking water. **For more information regarding this report or to attend a public meeting regarding the City of Richmond's drinking water, please call 281-342-0559.**

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; persons 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 providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the EPA Safe Drinking Water Hotline at (800)426-4791.

All Drinking Water May Contain Contaminants

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 EPAs Safe Drinking Water Hotline at (800)426-4791.

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.

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 the Public Works Department at (281)342-0559.

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 salts 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.

Lead in Homes

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. We are responsible for providing high quality drinking water, but we cannot control the variety of materials used in plumbing components.

HOW TO MINIMIZE YOUR EXPOSURE TO LEAD: If you have a water service line or interior plumbing that contains lead, you can take the following actions to reduce your household's risk of exposure.

Flush: If water has not been used in the property for a few hours, such as first thing in the morning or when coming home from work, run cold water from the kitchen or any bathroom faucet for five minutes. You can also run the dishwasher, take a shower or do a load of laundry to help flush water in your home's internal plumbing before drinking, cooking or preparing infant formula.

Replace Old Fixtures: Replace faucets and indoor plumbing with "lead-free" components. Faucets and fixtures installed prior to 2014 do not meet today's requirements for "lead-free" fixtures.

Clean Aerators: A faucet aerator is a small screen added to the end of a faucet to mix air with water to reduce the flow of water coming from the faucet. Remove and clean the aerators on your faucets, as they may have trapped particles from your old lead service line.

Maintain Filters: Follow the manufacturer's maintenance schedule for the filtration system you have, including water pitchers, faucet-mounted filters, under-sink filter or refrigerator filters. The results of your water quality test may help to determine if you still wish to continue using a filter. Boiling the water does not remove lead.

LOWER YOUR RISK, DON'T LET IT SIT
The risk of lead contamination in water increases when water sits in pipes for longer than six hours. If you are concerned about lead, 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. You can use the flushed water for washing dishes, watering plants, or general cleaning.

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 http://www.epa.gov/safewater/lead.

SAVE Money, Water, and the Environment

Every Drop Counts

In spite of the fact that water is essential to life, only a fraction of Earth's water is available for use drinking. Water in oceans is too salty, two-thirds of the planet's fresh water is frozen in glaciers and ice caps, and available fresh water is diminishing due to pollution and population.

Water conservation is important. It is not only financially beneficial to conserve water, but it also contributes to the economy, environment, and community. It is imperative that this vital resource is protected and conserved for future generations. Together, we can make a great difference by making simple changes.

Here are some ideas for how you can save water:

- Find and fix leaks right away
- Turn the water off when you brush your teeth
- Upgrade to a WaterSense labeled showerhead
- Wait to wash clothes and dishes until you have a full load

Cross Connection Information

A cross-connection is any temporary or permanent connection between a potable (drinking) water source and a non-potable source. Non-potable water or other sources can contaminate your drinking water if backflow occurs.

Sources could include:

- Garden hoses
- Swimming pools
- Irrigation systems
- Residential fire protection systems

Your Role as a Water Customer

By taking steps to control cross connections and prevent the possibility of backflow at your home, you will help to protect the public water supply and ensure that your family continues to enjoy safe drinking water. Garden hoses and irrigation systems are common concerns, but there are other common residential sources of cross connections, too.

In addition to maintaining a rigorous cross-connection control (CCC) program for system monitoring, the Richmond Utilities Department recommends that residents install backflow prevention devices for outside and inside hose connections to protect your home's water as well as your drinking water supply. For more information on cross connections, please call (281)342-0559 or visit www.richmondtx.gov.

Definitions and Abbreviations

The following tables contain scientific terms and measures, some of which may require explanation.

ACTION LEVEL: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ACTION LEVEL GOAL (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

AVG: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

LEVEL 1 ASSESSMENT: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) 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 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 on multiple occasions.

MAXIMUM CONTAMINANT LEVEL OR MCL: 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.

MAXIMUM CONTAMINANT LEVEL GOAL OR MCLG: 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.

MAXIMUM RESIDUAL DISINFECTANT LEVEL OR MRDL: 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.

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL OR MRDLG: 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.

MFL: million fibers per liter (a measure of asbestos)

MREM: millirems per year (a measure of radiation absorbed by the body)

NA: not applicable

NTU: nephelometric turbidity units (a measure of turbidity)

PCI/L: picocuries per liter (a measure of radioactivity)

PPB: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water

PPM: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water

PPQ: parts per quadrillion, or picograms per liter (pg/L)

PPT: parts per trillion, or nanograms per liter (ng/L)

TREATMENT TECHNIQUE OR TT: A required process intended to reduce the level of a contaminant in drinking water.

CITY OF RICHMOND

(INCLUDES MUD 187, MUD 207, MUD 215, AND WILLIAMS RANCH MUD 1)

2022 Water Quality Test Results

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/08/2020	1.3	1.3	0.252	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	09/08/2020	0	15	2.8	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorite	2022	0.509	0 - 0.509	0.8	1	ppm	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	2022	16	0 - 20.8	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	38	3.5 - 50.6	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

** The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year.*

** The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year.*

Inorganic Contaminants

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2022	3.6	0 - 3.6	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2022	0.177	0.096 - 0.177	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2022	170	0 - 170	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2022	0.2	0.22 - 0.32	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2022	0.47	0 - 0.47	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2022	4.4	0 - 4.4	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Gross alpha excluding radon and uranium	2022	3	3 - 3	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2022	2.2	2.2 - 2.2	0	30	ug/l	N	Erosion of natural deposits.

Synthetic Organic Contaminants Including Pesticides and Herbicides

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2022	1.1	0 - 1.1	3	3	ppb	N	Runoff from herbicide used on row crops.
Di (2-ethylhexyl) phthalate	2022	1	0 - 1.8	0	6	ppb	N	Discharge from rubber and chemical factories.
Simazine	2022	0.12	0 - 0.12	4	4	ppb	N	Herbicide runoff.

Volatile Organic

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Xylenes	2022	0.0005	0 - 0.0005	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chloramines (Chlorine Residual, Total)	2022	2.75	.7	4.0	4	4	ppm	N	Water additive used to control microbes.

Turbidity

Turbidity	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.2 NTU	1.0 NTU	N	Soil runoff.
Lowest monthly % meeting limit	100%	0.3 NTU	N	Soil runoff.

Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Total Organic Carbon

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 violations section.

Water Accountability The City of Richmond is required to submit a Water Audit Report to the Texas Water Development Board annually. In 2022, the City of Richmond pumped 1,325,774,000 gallons with 97.8% accountability.

Customer Resources

Customer Service & Billing
Report urgent concerns, such as water leaks and outages, discolored water, stoppages, or hydrant leaks to Richmond's 24-hour Response Center: (281)342-0559.

Billing: Monday-Friday (7:30 am-5:00 pm): Call (281)342-5456 Opt. #2 or go to https://www.municipalonlinepayments.com/richmondtx/utilities

Drinking Water Quality
Learn more about drinking water quality: https://www.richmondtx.gov/departments/public-works/water-department

Ask questions about Richmond's water quality: (281)342-0559

Ask general drinking water quality questions via the Environmental Protection Agency's Safe Drinking Water Hotline: (800)426-4791

Learn more about Texas water regulations: https://www.tceq.texas.gov/agency/water_main.html

Conservation
Explore tips to help you save water: https://www.twdb.texas.gov/conservation/ and https://takecareoftexas.org/water
Learn how to find and fix leaks: https://www.epa.gov/watersense/fix-leak-week

Emergency Alerts
Sign up to receive emergency alerts: https://public.alertsense.com/SignUp/?RegionId=1834

FORT BEND COUNTY MUD 121

2022 Water Quality Test Results

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	0.28	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	0.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chloramines (Chlorine Residual, Total)	2022	2.18	.6	3.8	4	4	ppm	N	Water additive used to control microbes.

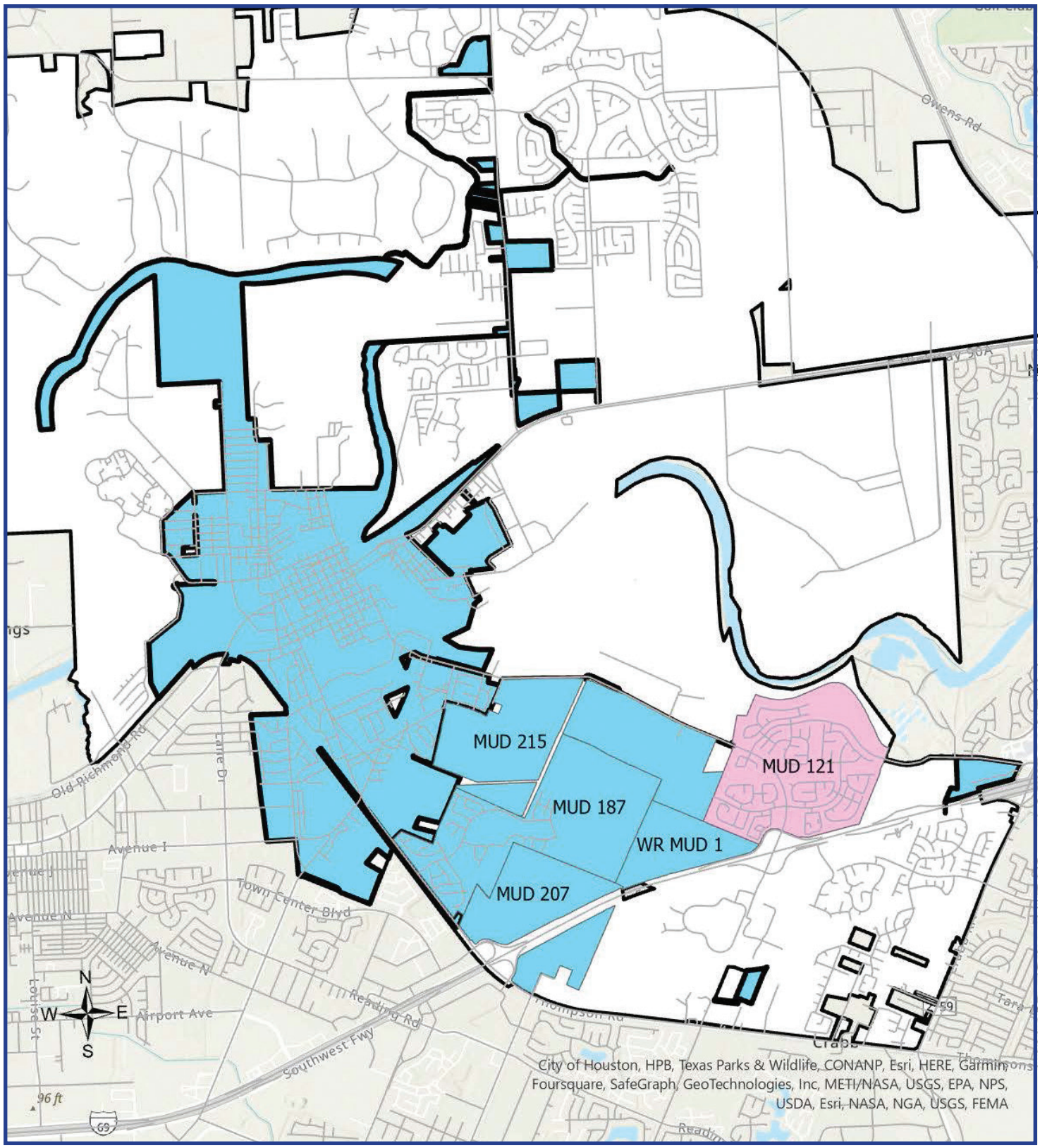
Water Accountability Fort Bend MUD 121 is required to submit a Water Audit Report to the Texas Water Development Board annually. In 2022, the City of Richmond pumped 143,893,700 gallons to MUD 121 with 96.5% accountability.

Customer Service is Our Number One Priority

We take pride in the water that is provided to our customers and we are continually striving to improve our service to you. To accomplish this goal, we need your help. Any time you find your water quality or service response is below your expectations, please contact us at (281)342-0559. We will respond promptly and professionally.

EN ESPAÑOL
Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (281)342-0559.

Service Area Map



City of Richmond (Main System)

MUD 121 - River Park West

Report Water Leaks

Delivering water to our homes, businesses, schools, fire hydrants and numerous other needs is the job of an extensive water distribution system. The distribution system is nearly hidden from view since it is chiefly underground. When a leak does occur, please report the leak to the Public Works Department at (281)342-0559, we provide 24 hour assistance, 7 days a week.

Keeping Fats, Oils, and Grease (FOG) out of the Sewer System

Why is it important to keep fats, oils, and grease out of the sewer system?

Fats, oils, and grease (FOG) comes from meat fats in food scraps, cooking oil, shortening, lard, butter and margarine, gravy, and food products such as mayonnaise, salad dressings, and sour cream. FOG poured down kitchen drains accumulates inside sewer pipes. As the FOG builds up, it restricts the flow in the pipe and can cause untreated wastewater to back up into homes and businesses, resulting in high costs for cleanup and restoration. Manholes can overflow into parks, yards, streets, and storm drains.

What can I do to keep fats, oils, and grease out of the sewer system?

Do not pour fats, oils, and grease down the drain. This is the most important thing you can do to prevent them from entering the sewer system, because the fats, oils, and grease poured down kitchen drains accumulate inside sewer pipes resulting in high costs for cleanup and restoration.

- Never pour fats, oils, or grease down the sink, garbage disposal, or toilet.
- Pour fats, oils, and grease (after it has cooled) into a container. Once the container is full, secure with a lid and place it in the trash.
- Before washing, scrape and dry wipe pots, pans, and dishes with paper towels and dispose of materials in the trash.
- Put baskets or strainers in sink drains to catch food scraps and other food solids and empty contents into the trash.
- Minimize use of garbage disposals.

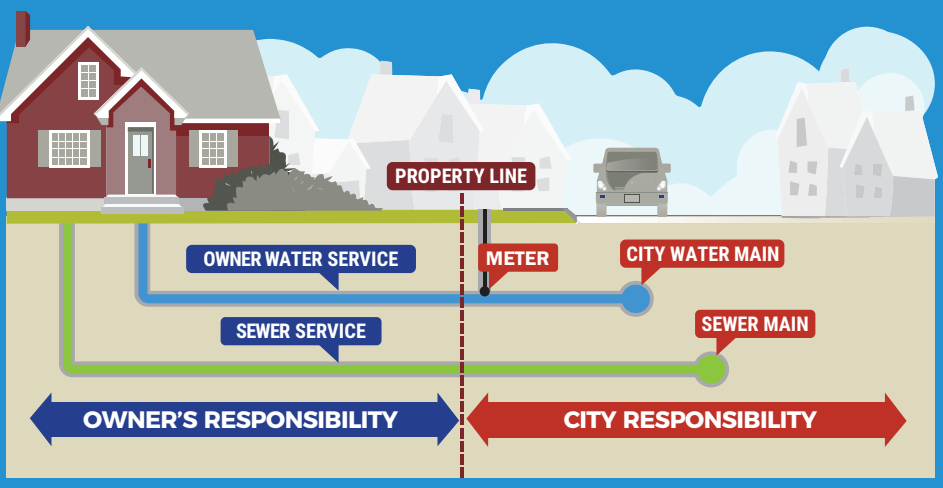
By reducing FOG going down your sink prevents sewer problems. It is important to follow these tips in order to prevent expensive sewer backups, and plumbing emergencies, as well as to protect the quality of water in your neighborhood.

Avoid Sanitary Sewer Back-ups

Every time you wash your hands, rinse a dish, run the washing machine, or flush the toilet, water flows from your sanitary sewer line to a city-wide sewer system. With that being said, a little clog could cause a big problem for every drain and toilet in your home. Sewer lines can become clogged by fat, oil, and grease among other items. To prevent sewer line stoppages, dispose of the following items in the trash, not in the sink drain, garbage disposal, or toilet.

- Flushable Wipes
- Oil and Grease
- Egg Shells
- Fruit and Vegetable Peels
- Hygiene Products
- Diapers

If you are experiencing a stoppage, please call the Public Works Department first at (281)342-0559. The technician will investigate the problem and determine whether the stoppage is in the homeowner's wastewater line or the City's collection system.



RICHMOND
EST. TEXAS 1837

City of Richmond
402 Morton Street
Richmond, TX 77469




RICHMOND
is here for you!

ESSENTIAL
Service, Exceptional People

These are some of our unsung heroes, who perform tasks such as testing water, repairing equipment, and ensuring that the water we use is of the highest quality. We are fortunate to have systems experts working round the clock to ensure our water stays safe and keeps flowing to our residents in our City and ETJ. From system operators to water superintendents to utility maintenance workers, each member of our skilled staff plays an integral role in bringing you safe, abundant water.