RICHMOND
EST. TEXAS 1837

City of Richmond
Public Works

Main System - PWS 0790023
Riverpark West - PWS 0790393
Rivers Edge - PWS 0790445

2020 Water Quality Report

City Manager's Message

Dear Customers,

The City of Richmond provides water and wastewater services to the City's customers and several adjacent Municipal Utility Districts. The 2020 Consumer Confidence Report includes the water quality results for the City of Richmond's source water and distribution system that includes Fort Bend County Municipal Utility Districts (MUD's) 187 – Del Webb, 207 – George Foundation, 215 – Veranda, and Williams Ranch MUD 1. Specific distribution sample results are also listed for MUD's that the City provides water supply and operates but have unique water system identification numbers, Fort Bend County MUD's 121 – Riverpark West, and 140 – Rivers Edge.

The City has been very busy with infrastructure rehabilitation projects and planning for future developments. Last year we updated our Water Conservation and Drought Contingency Plans for the customers we serve and is available for you to view on the City's web site at https://www.richmondtx.gov/departments/public-works/water-department. By mid-year we will have completed our American Water Infrastructure Act (AWIA) compliance project. The requirements of this project include updating a Risk and Resilience Assessment (RRA), Emergency Response Plan (ERP), and submitting certification of completion to the EPA.

If you have any questions with regards to the Water Quality Report or the Master Plan, please contact our Public Works Department at (281)342-0559.

Thank you,

Terri Vela

City Manager

Field Superintendent Mike Moody, Field Superintendent Cliff Holik, and Water Quality/Code Compliance Supervisor Scott Fajkus show TCEQ's two Awards Richmond was again recognized for– Outstanding Public Drinking Water System Award and the Outstanding Cross– Connection Control Award. Our Utilities team continues to strive for excellence.

This is your Water Quality Report for January 1 to December 31, 2020

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.

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. Please feel free to contact our Utilities Coordinator at (281)342-0559 if you have any questions or would like to request a meeting regarding your drinking 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; 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.

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. 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:

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

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)

2020 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	2020	1.3	1.3	0.252	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2020	0	15	2.8	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Inorganic Contaminants

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2020	3.6	0 - 3.6	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2020	0.236	0.147 - 0.236	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2020	30	0 - 30	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2020	0.3	0.26 - 0.3	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]	2020	0.38	0 - 0.38	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2020	5.1	5.1 - 5.1	0	50	pCi/L*	N	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2020	3	3 - 3	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2020	2.4	2.4 - 2.4	0	30	ug/l	N	Erosion of natural deposits.

**EPA considers 50 pCi/L to be the level of concern for beta particles.*

Violatile Organic Contaminants

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	UnitS	Violation (Y/N)	Likely Source of Contamination
Xylenes	2020	0.0018	0 - 0.0018	10	10	ppm	No	Discharge from petroleum factories; Discharge from chemical factories.

Disinfection By-Products

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorite	2020	0.566	0 - 0.566	0.8	1	ppm	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	2020	17	1.5 - 16.4	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2020	46	4.8 - 45.6	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.*

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)	2020	2.83	0.66	3.87	4	4	ppm	No	Water additive used to control microbes.

Turbidity

Turbidity	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.11 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.

Violations

Disinfectant Residual	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP), Major	10/01/2020	10/31/2020	City failed to test the drinking water for the contaminant and period indicated. Because of this failure, the City cannot be sure of the quality of our drinking water during the period indicated. The processing unit that utilizes chlorites was not in operation at the Surface Water Treatment Plant at the time of sampling in the distribution system for this month.*

** Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.*

Water Accountability

The City of Richmond is required to submit a Water Audit Report to the Texas Water Development Board annually. In 2020, the City of Richmond pumped 826,922,600 gallons with 96.62% accountability.

FORT BEND COUNTY MUD 121

2020 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	9/4/2019	1.3	1.3	0.466	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	9/4/2019	0	15	2	1	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
Haloacetic Acids (HAA5)	2020	6	6.1 - 6.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2020	11	11 - 11	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
Nitrate [measured as Nitrogen]	2020	0.07	0.07 - 0.07	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; 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)	2020	2.03	.52	2.95	4	4	ppm	No	Water additive used to control microbes.

Water Accountability

Fort Bend County MUD 121 is required to submit a Water Audit Report to the Texas Water Development Board annually. In 2020, the City of Richmond pumped 138,706,900 gallons to MUD 121 with 98.25% accountability.

FORT BEND COUNTY MUD 140

2020 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	2020	1.3	1.3	0.0443	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2020	0	15	0	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
Haloacetic Acids (HAA5)	2020	0	0 - 19.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2020	0	0 - 45.5	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
Nitrate [measured as Nitrogen]	2020	.69	0.69 - 0.87	10	10	ppm	N	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	2020	.18	0.18 - 0.18	1	1	ppm	N	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

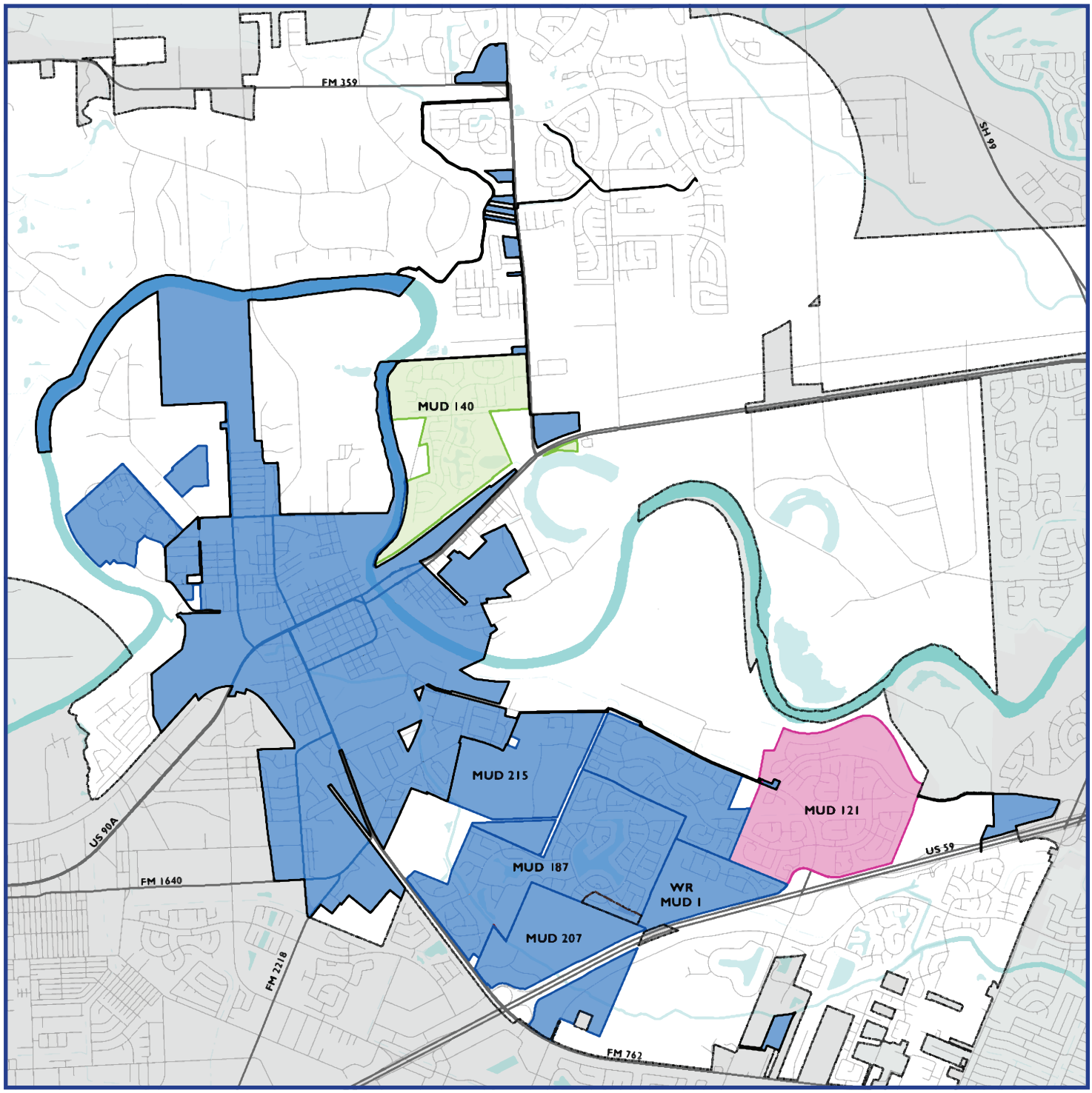
Disinfectant Residual

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)	2020	2.80	1.52	3.73	4	4	ppm	No	Water additive used to control microbes.

Water Accountability

Fort Bend County MUD 140 is required to submit a Water Audit Report to the Texas Water Development Board annually. In 2020, the City of Richmond pumped 86,123,600 gallons to MUD 140 with 97.25% accountability.

Service Area Map



Main System

MUD 140 - Rivers Edge

MUD 121 - Riverpark 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.

Help Conserve Water Today

Inside your home, toilets consume the most water, followed by washing machines and showers. Outdoor use can account for more than 30% of total home water use. Here are a few easy things you can start doing today to save water.

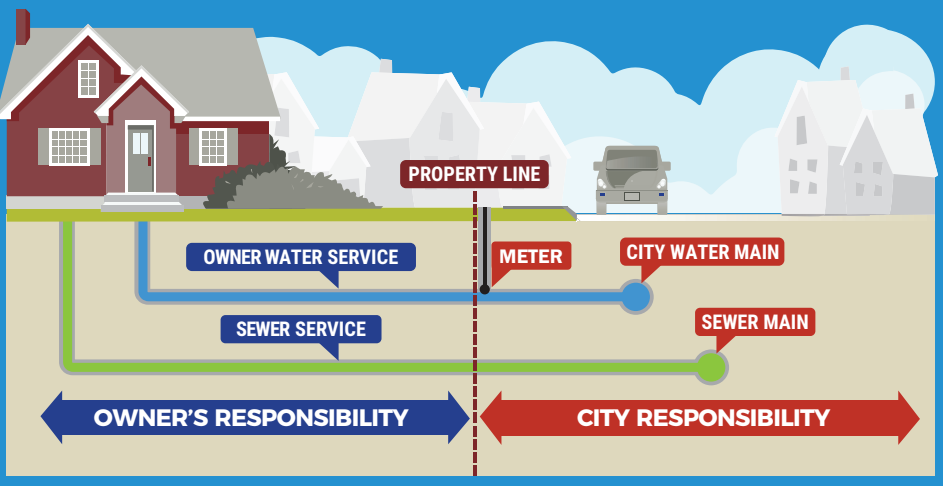
• Fix leaks – Leaks waste both water and energy and can account for 10% or more of your water bill. Frequently check for leaks in your toilets, washing machines, and sinks. A slow drip adds up.
• Shorten shower time – Reducing your shower time from 10 to 5 minutes could save at least 12.5 gallons per shower with efficient shower heads. That's over 4,500 gallons a year.
• Turn off the faucet – Don't let water run when you wash your hands, brush your teeth, and shave. Turn it off until you need it again.
• Lower washing machine water level – Use the lowest water level setting on your washing machine whenever possible.
• Water more efficiently – Limit your yard watering to no more than once a week, and prevent water evaporation by watering early in the morning and never on windy days. Also, adjust sprinklers so they don't water the pavement or other unnecessary areas.

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

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 información importante sobre el agua para tomar. Si tiene preguntas o' quiere discutir sobre este reporte en español, favor de llamar al tel. (281)342-0559.