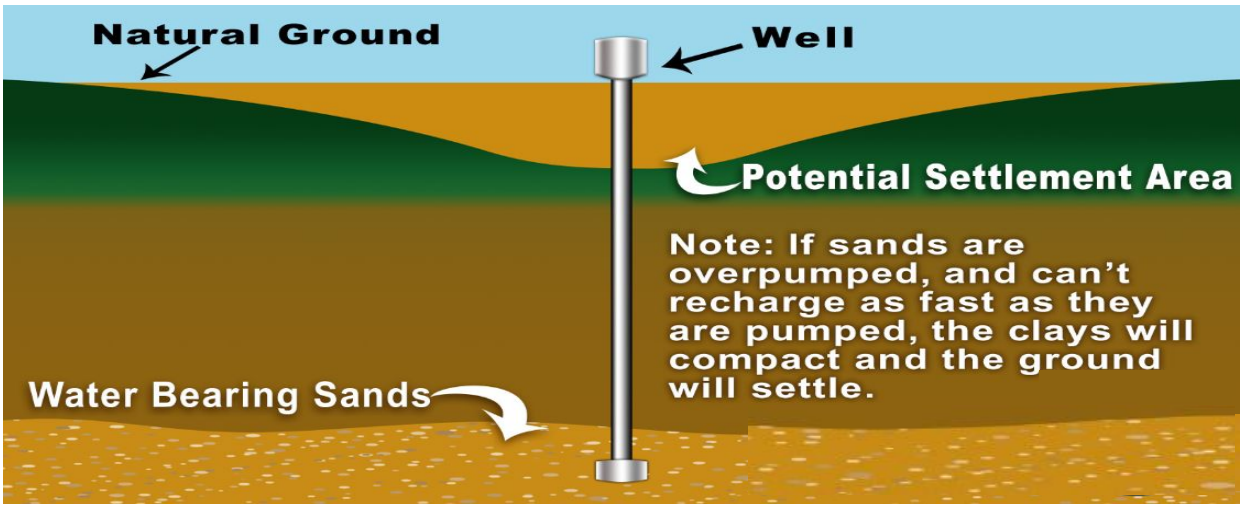
City of Richmond
2017
Water Quality Report

Richmond's Surface Water Treatment Plant, located at 5600 Riverwood Drive, celebrated its official opening on March 15th. The state of the art Surface Water Treatment has the capacity to treat 2 million gallons of water per day which will help meet the expected groundwater reduction requirements in coming years for the City's Groundwater Reduction Plan (GRP).

Why is Surface Water So Important? To Minimize Subsidence

Richmond is required by the Fort Bend Subsidence District to reduce the amount of groundwater used by 30 percent 2016 and 60 percent by 2025. The objective is to reduce groundwater withdrawals that contribute to subsidence. Subsidence contributes to flooding, fault movement and also damages wells and pipelines. Pumping less groundwater may help alleviate issues with subsidence. Surface water is commonly used in place of groundwater to reduce subsidence.



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 EPA 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.

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.

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 Public Works 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. 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 you 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.

DEFINITIONS

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 (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 (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 (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 (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.

Abbreviations

mdl	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 parts
ppq	per quadrillion, or picograms per liter (pg/L)

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.

Information about Source water Assessments

TCEQ completed an assessment of your source water and results indicate that some of your sources are suseptible 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. For more information on source water assessments and protection efforts at our system please contact Public Works at (281) 342-0559.

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	No	Naturally present in the environment.

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# of Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	9/20/2016	1.3	1.3	0.2	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives Corrosion of household plumbing systems.
Lead	9/20/2016	0	15	2.2	1	ppb	No	Corrosion of household plumbing Systems; Erosion of natural Deposits.

2017 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level Or Highest Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2017	1	0-3.8	No goal for The total	60	ppb	No	By-product of drinking water disinfection.

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

Total Trihalomethanes (TTHM)	2017	4	0-4.4	No Goal for The total	80	ppb	No	By-product of drinking water disinfection.

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

Inorganic Contaminants	Collection Date	Highest Level Of Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2017	3.8	0-3.8	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics Production wastes.
Barium	2017	0.225	0.169-0.225	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2017	0.31	0.28-0.31	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes Strong teeth; Discharge from Fertilizer and aluminum factories.
Nitrate (measured As Nitrogen)	2017	0.08	0-0.08	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, Sewage; Erosion of natural deposits.
Selenium	2017	6	3.4-6	50	50	ppb	No	Discharge from petroleum and Metal refineries; Erosion of Natural deposits; Discharge from mines.

Radioactive Contaminants	Collection Date	Highest Level Or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon Emitters	2017	5.6	0-5.6	0	50	pCi/L	No	Decay of natural and man-made Deposits.
Combined Radium 226/228	2017	1.3	0-1.3	0	5	pCi/L	No	Erosion of natural deposits.
Gross alpha excluding Radon and Uranium	2017	8.7	4-8.7	0	15	pCi/L	No	Erosion of natural deposits.
Uranium	2017	5.1	2.3-5.1	0	30	ug/l	No	Erosion of natural deposits.

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

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation	Source in Drinking Water
	2017	2.38 mg/l	0.89 mg/l	3.49 mg/l	4	4	ppm	No	Water additive used to control microbes.

WATER ACCOUNTABILITY

The City of Richmond is required to submit a Water Audit Report to the Texas Water Development Board annually. In 2017, the City of Richmond pumped 513,151,550 gallons with a 96.08% accountability.

City of Richmond
402 Morton Street
Richmond, Texas 77469

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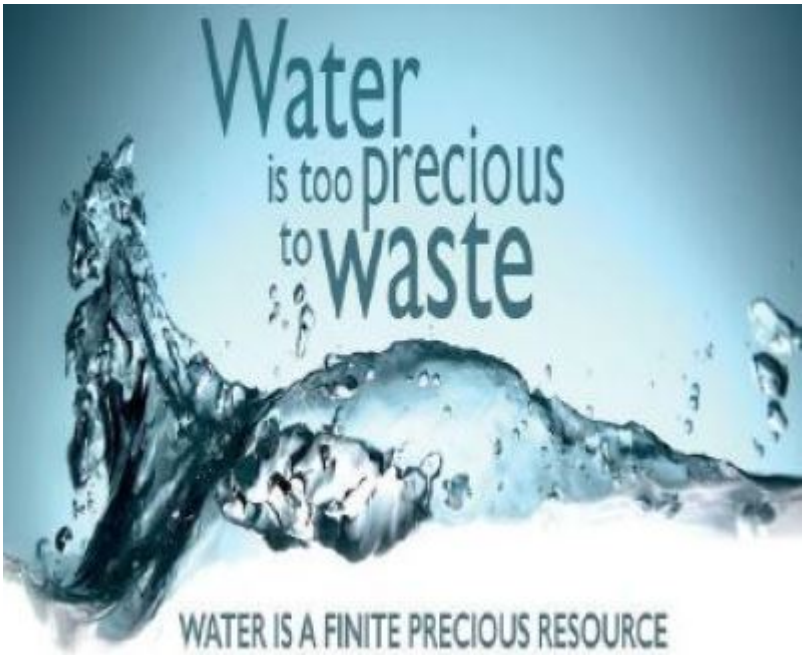
Annual Water Quality Report for the period of January 1 to December 31, 2017

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.



FACTS ABOUT YOU 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, 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.