

# Brazoria County Municipal Utility District No. 21

## Public Water System ID 0200610

### 2015 Water Quality Report

The Board of Directors of Brazoria County Municipal Utility District No. 21 is pleased to give you this report about our drinking water based on 2015 test results. The District is required by the Federal Safe Drinking Water Act to send the report each year. The content of this report is specified by the State of Texas. If you have any difficulties in reading or understanding the report, please call our operator at the number below. Please call the District's operator, Environmental Development Partners, at **832-467-1599** if you have any questions regarding this report.

#### **Our Drinking Water Meets or Exceeds All Federal Drinking Water Requirements.**

This report is a summary of the quality of the water we provide our customers, was created by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented on the following page. We hope this information helps you become more knowledgeable about what's in your drinking water.

#### **En Español**

***Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar a Brazoria County Municipal Utility District No. 21 al telefono 832-467-1599.***

#### **Public Participation Opportunities**

The Board meets regularly at 1:00PM on the 3rd Monday of each month at 3200 Southwest Freeway, Suite 2600, Houston, Texas. For information regarding the date, time and location of the meeting call **832-467-1599** or send your comments to:

Brazoria Co. MUD #21  
Attn: Board of Directors  
P.O. Box 690928  
Houston, Texas 77269-0928

Data contained in this report was collected in 2015 except where noted. The State of Texas allows us to monitor for some substances less than once per year because the concentration of these substances does not change frequently. Although the District samples your water for up to 97 substances we are listing only those substances that were detected in your water. For additional information about your water quality please contact our operator, EDP, at **832-467-1599**.

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2015, our system lost an estimated 605,760 gallons of water. Overall, our system accounted for approximately 100% of the water produced during that period. If you have any questions about the water loss audit please call **832-467-1599**.

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

Brazoria County M.U.D. No. 21 water treatment facilities obtained their water from a groundwater well that draws water from the Gulf Coast Aquifer. An aquifer is a porous underground formation (such as sand and gravel) that is saturated with water. The Texas Commission on Environmental Quality 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 detection of these contaminants may be found in this Consumer Confidence Report. Further details about sources and source-water assessments are available in the Drinking Water Watch at <http://dww2.tceq.texas.gov/DWWW/>. For more information on source water assessments and protection efforts please call our District operator's office at **832-467-1599** Monday through Friday, 8:00 AM to 5:00 PM.

#### **All Drinking Water May Contain Contaminants**

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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's Safe Drinking Water Hotline at 1-800-426-4791.

#### **Secondary Constituents**

Many Constituents (such as calcium, sodium, or iron), which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water. For more information on taste, odor, or color of drinking water, please contact the District operator at **832-467-1599** or toll free at **1-866-467-1599**.

#### **Interconnected Water Supplies**

The District can receive water from an adjoining water district during emergency situations and maintenance periods. The adjoining District is Brazoria County MUD 29. The water sources for this district are ground water wells drawing water from the same aquifer as Brazoria County MUD 21. For additional information about the water quality for these systems, please call the District operator at **832-467-1599**.

#### **Special Notice:**

Required language for ALL community public water supplies:

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 1-800-426-4791.

#### **Water Sources**

The sources of drinking water (both tap 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. 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.

#### **Protecting the Water You Drink**

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health as public water systems.

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#### Inorganic Substances

Year	Constituent (Units)	MCL	MCLG	Maximum Level Found	Range Min. / Max.	Violation	Typical Source
2015	Arsenic (ppb)	10	0	8.3	7.8 / 8.3	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

*\*While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.*

2014 - 2015	Barium (ppm)	2	2	0.283	0.267 / 0.283	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2014 - 2015	Fluoride (ppm)	4	4	2.35	2.24 / 2.35	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

*This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system Brazoria County MUD 21 has a fluoride concentration of 2.35 mg/L.*

*Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.*

*Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/L of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem.*

*For more information, please call Environmental Development Partners at 832-467-1599. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.*

#### Radioactive Contaminants

Year	Constituent (Units)	MCL	MCLG	Maximum Level Found	Range Min. / Max.	Violation	Typical Source
2012	Beta Photon Emitters (pCi/L)	50**	0	4.9	4.9 / 4.9	No	Erosion of natural deposits.
2012	Combined Radium 226/228 (pCi/L)	5	0	3.9	3.9 / 3.9	No	Erosion of natural deposits.
2015	Gross Alpha excluding Radon & Uranium (pCi/L)	15	0	3.9	3.9 / 3.9	No	Erosion of natural deposits.

*\*\* The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.*

#### Maximum Residual Disinfectant Level (MRDL)

Year	Disinfectant (Units)	MRDLG	MRDL	Annual Average	Range of Detections Min. / Max.	Violation	Source of Contaminant
2015	Chlorine Residual, Free (ppm)	4.0	4.0	1.38	0.88 / 1.95	No	Disinfection used to control microbes.

#### Lead & Copper

Year	Contaminant (Units)	Action Level	90 <sup>th</sup> Percentile	Number of Samples Exceeding AL	Violation	Typical Source
2015	Lead (ppm)	0.015	0.0	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
2015	Copper (ppm)	1.3	0.35	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.

*Required Additional Health Information for Lead "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 the service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but 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>."*

#### Disinfectant By-Products

Year	Contaminant (Units)	MCLG	MCL	Highest Level Detected	Range Min. / Max.	Violations	Source of Contaminant
2015	Trihalomethanes (ppb)	n/a	80	6.7	6.7 / 6.7	No	By-product of drinking water chlorination.
2015	Haloacetic Acids (ppb)	n/a	60	1.3	1.3 / 1.3	No	By-product of drinking water chlorination.

#### Definitions and Abbreviations

<b>AL</b>	<u>Action Level</u> : The concentration of contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.	<b>NTU</b>	Nephelometric Turbidity Units
<b>ALG</b>	<u>Action Level Goal</u> : 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	<b>na</b>	not applicable
<b>MCL</b>	<u>Maximum Contaminant Level</u> : 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.	<b>MFL</b>	million fibers per liter (a measure of asbestos)
<b>MCLG</b>	<u>Maximum Contaminant Level Goal</u> : The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.	<b>pCi/L</b>	picocuries per liter, (a measure of radioactivity)
<b>MRDL</b>	<u>Maximum Residual Disinfectant Level</u> : 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.	<b>ppm</b>	parts per million or milligrams per liter (mg/l)
<b>MRDLG</b>	<u>Maximum Residual Disinfectant Level Goal</u> : The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.	<b>ppb</b>	parts per billion or micrograms per liter
<b>Avg</b>	<u>Average</u> : Regulatory compliance with some MCLs is based on running average of monthly samples.	<b>ppt</b>	parts per trillion, or nanograms per liters
		<b>ppq</b>	parts per quadrillion, or picograms per liter