Sources of Drinking Water

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.

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 Safe Drinking Water Hotline at 800.426.4791.

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 *epa.gov/safewater/lead*.

Information about Source Water Assessments

The TCEQ 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 detections of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Tracy Sambrano at 281.924.8251.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: *tceq.texas.gov/gis/swaview*.

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: *dww2.tceq.texas.gov/DWW*.

Source Water Name	Type of Water	Report Status	Location
12 - 3945 Well Rd. / SE Well	GW	A	Brazoria County
13 - 1003 E Belgravia	GW	A	Brazoria County
14 - 3910 Kirby Dr.	GW	A	Brazoria County
2 - 2838 McLean	GW	A	Brazoria County
3 – 1801 E. Broadway/ Mary's Creek	GW	A	Brazoria County
6 - 3503 Liberty Dr.	GW	A	Brazoria County
7 - 3812 Magnolia St.	GW	A	Brazoria County
8 - 13711 Sub Garden Rd.	GW	A	Brazoria County
9 - 2529 Cullen Rd.	GW	A	Brazoria County
GW from City of Houston/ GW from Sims Bayou	GW	A	Galveston/ Harris County
Remote - Formerly G0200327C	GW	A	Brazoria County
SW from City of Houston	SW	A	Harris County
SW from Clear Brook City MUD	SW	A	Harris/Brazoria County

Definitions

A: Active

SW: Surface Water

GW: Groundwater

Questions?

For more information about this report, or for any questions relating to your drinking water, call Tracy Sambrano at 281.652.1799.

Presented by
City of Pearland, Texas

ANNUAL WATER QUALITY REPORT

Reporting Year 2016

PWS ID#: TX0200008

A Primer on Water Quality

Is your water safe for drinking?

Can fish and other aquatic life thrive in streams and lakes that are affected by human activities? What is the water quality? To answer these questions, it is helpful to understand what "water quality" means.

What is "water quality?"

Water quality is a measure of the suitability of water for a particular use based on physical, chemical, and biological characteristics. To determine water quality, scientists measure and analyze characteristics of the water such as temperature, dissolved mineral content, and number of bacteria. Those characteristics are then compared to numeric standards and guidelines to decide if the water is suitable for a particular use.

How is water quality measured?

Some aspects of water quality can be determined in the stream or at the well. These include temperature, acidity (pH), dissolved oxygen, and electrical conductance (an indirect indicator of dissolved minerals in the water). Analyses of individual chemicals generally are done at a laboratory.

Why are there water-quality standards and guidelines?

Standards and guidelines are established to protect water for designated uses such as drinking, recreation, agricultural irrigation, or protection and maintenance of aquatic life. Standards for drinking-water quality ensure that public drinking-water supplies are as safe as possible. The U.S. Environmental Protection Agency (USEPA) and the States are responsible for establishing the standards for constituents in water that have been shown to pose a risk to human health.

There When You Need Us

Annually, the City of Pearland produces a water quality report covering all testing performed between January 1 and December 31, 2016. Over the years, the City has been dedicated to producing drinking water that meets all state and federal standards and continually strives to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, Pearland remains vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of water users.

Remember that our friendly Public Works representatives are always available to assist you if you ever have questions or concerns about your water.

Subscribe for Resident Alerts

The City of Pearland uses Resident Alerts to communicate with thousands of businesses and residents in minutes during an emergency. To sign up to receive alerts, visit *pearlandtx.gov/alerts* to self-register by providing the contact information you prefer.

Through the system, the City alerts residents about: severe weather, fires, floods, toxic environmental issues, interruptions of water or sewer services, and other critical information. In addition, residents can opt in to receive: traffic alerts, general City news and more.

Do Your Part to Keep Our Water Clean:

- To avoid chemical runoff to our waterways, apply herbicides and pesticides per manufacturer's specifications.
- Water Wisely. Watering too heavily or too often weakens your lawn and causes erosion and runoff pollution.
- Collect your food scraps, oil, and grease to avoid clogging sewer lines, which can cause overflow that pollute nearby creeks and streams.
- When performing preventative maintenance on your vehicles NEVER pour used fluids down the storm drains. This is a major source of contamination of Texas waterways.
- Check your car, boat, motorcycle, and other equipment for leaks and spills. Make repairs as soon as possible. Clean up spilled fluids with kitty litter or sand.
- Have your septic system inspected every 2 years, and have the septic tank pumped as necessary – usually every 3 to 5 years.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor 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.

Regulated Substances

				CITY OF PEARLAND		CITY OF PEARLAND MUD 1		CITY OF HOUSTON			
DISINFECTANTS AND DISINFECTION BY-PRODUCTS	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alkalinity	2015	N/A	N/A	207	36-301	N/A	N/A	N/A	N/A	No	Natural occurring soluble mineral salts
Hardness	2015	N/A	N/A	87.8	39-127	N/A	N/A	N/A	N/A	No	Naturally occurring calcium
Haloacetic Acids (HAAs) (ppb)	2015	60	No goal for the total	17	0-51.7	0	0	33	0-73.1	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2015	80	No goal for the total	19	0-49.3	1	0.12	38	0-70.4	No	By-product of drinking water disinfection
Inorganic Contaminants	Year Sampled	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Violation	Typical Source
Arsenic (ppb)	2015	10	0	3.8	3.6-3.8	N/A	N/A	N/A	N/A	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Asbestos (MFL)	1.31.12	7	7	0.1952	0.1952-0.1952	N/A	N/A	N/A	N/A	No	Decay of asbestos cement water main; erosion of natural deposits.
Barium (ppm)	2015	2	2	0.216	0.168-0.216	N/A	N/A	N/A	N/A	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Flouride (ppm)	2015	4.0	4	0.85	0.6-0.85	N/A	N/A	N/A	N/A	No	Erosion of natural deposits, water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen) (ppm)	2015	10	10	1	0 -1.12	N/A	N/A	N/A	N/A	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitriate (measured as Nitrogen) (ppm)	2015	1	1	0.08	0-0.08	N/A	N/A	N/A	N/A	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium (ppb)	2015	15	0	5	5-5	N/A	N/A	N/A	N/A	No	Discharge from petroleum and metal refineries. Erosion of natural deposits; Discharge from mines.
Cyanide (ppb)	2015	200	200	N/A	N/A	N/A	N/A	80	0-80	No	Runoff from fertilizer use; leaching from septic tanks, erosion of natural deposits.
Radioactive Contaminants	Year Sampled	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Violation	Typical Source
Combined Radium 226/228 (PCi/L)	2015	5	0	Less than detection limit	No range	N/A	N/A	N/A	N/A	No	Erosion of natural deposits.
Combined uranium (MG/L)	2015	0.03	0	Less than detection limit	No range	N/A	N/A	N/A	N/A	No	Erosion of natural deposits.
Uranium (UG/L)	2015	30	0	N/A	N/A	N/A	N/A	7.8	0-7.8	No	Erosion of natural deposits.
Xylenes (ppm)	2015	10	10	0.0023	0-0.0023	N/A	N/A	N/A	N/A	No	Discharge from petroleum factories. Discharge from chemical factories.
Synthetic organic contaminants including pesticides and herbicides	Year Sampled	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Violation	Typical Source
Atrazine (UG/L)	2015	3	0.1	Less than detection limit	No range	N/A	N/A	N/A	N/A	No	Runoff from herbicide used on row crops.
DI (2 ethylhexyl) phthalate (ppb)	2015	6	0.6	Less than detection limit	No range	N/A	N/A	N/A	N/A	No	Discharge from rubber and chemical factories.
Simazine (UG/L)	2015	4	0.07	Less than detection limit	No range	N/A	N/A	N/A	N/A	No	Herbicide runoff
Lead and Copper	Year Sampled	Action Level (AL)	MCLG	Amount Detected (90th Percentile)	Sites above AL/Total Sites	Amount Detected (90th Percentile)	Sites above AL/Total Sites	Amount Detected (90th Percentile)	Sites above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2015	1.3	1.3	0.56	1	0.27	0	0.171	0	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing system.
Lead (ppb)	2015	15	0	3.5	0	0.31	0	4	0	No	Corrosion of household plumbing systems; erosion of natural deposits.

Disinfection Residual Table

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation	Likely Source of Contamination
Chloramines - **PWS 0200008**	2016	2.5 (T)	0.5	3.8 (T)	4	4	ppm	N	Water additive used to control microbes.
Chlorine - **PWS 0200411**	2016	1.50 (F)	0.20	2.60 (F)	4	4	ppm	N	Water additive used to control microbes.

Violations None

Definitions

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.

MFL (million fibers per liter): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

N/A: 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.

pCi/L (picocuries per liter): A measure of radioactivity.

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).

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

Important Health Information

While your drinking water meets the U.S. EPA's standard for arsenic, it does contain low levels of arsenic. The U.S. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. 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.

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.