



Presented by
City of Pearland, Texas

ANNUAL WATER QUALITY REPORT

Reporting Year 2013

PWS ID#: TX0200008



There When You Need Us

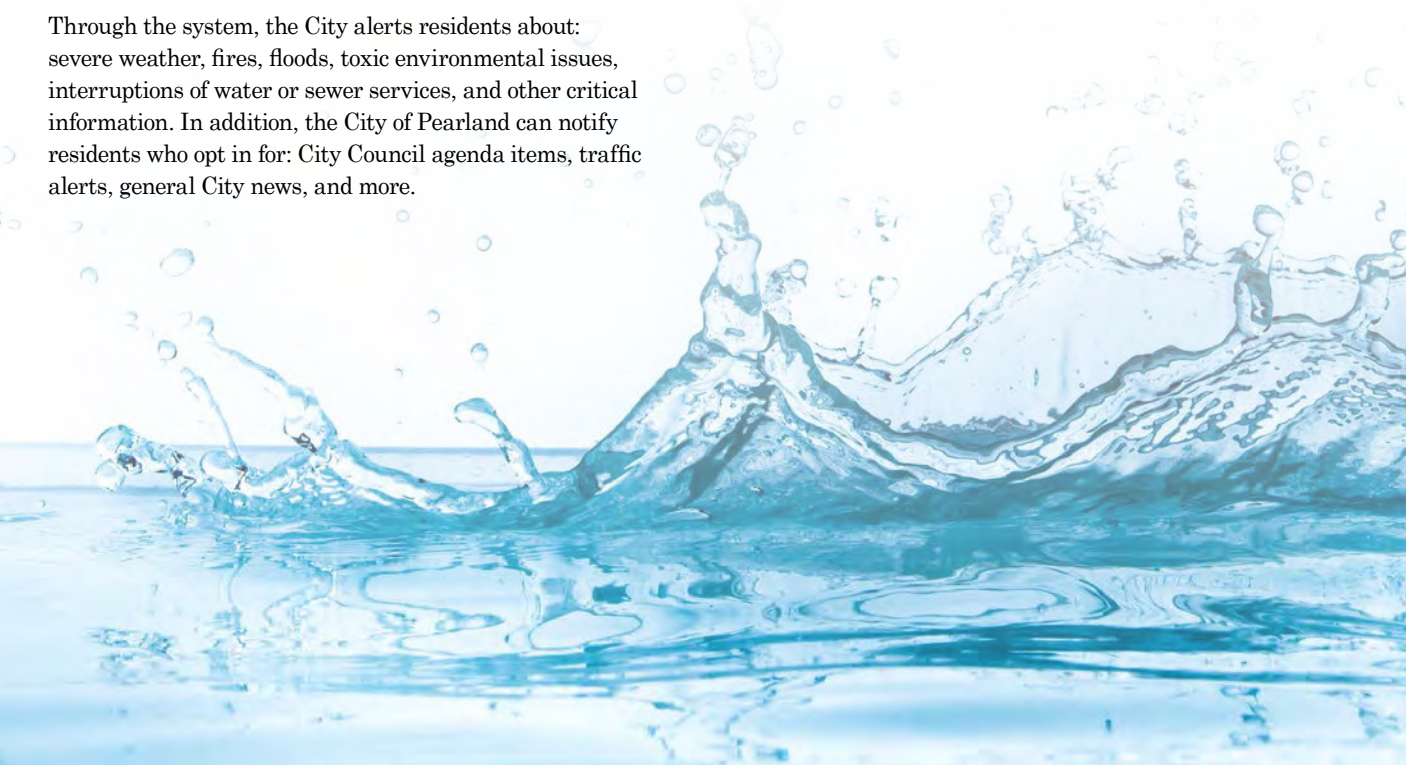
Annually, the City of Pearland produces a water quality report covering all testing performed between January 1 and December 31, 2013. Over the years, the City has been dedicated to producing drinking water that meets all state and federal standards and continually strives to adopt new methods for delivering 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 Citizen Alerts

The City of Pearland uses Citizen 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, the City of Pearland can notify residents who opt in for: City Council agenda items, traffic alerts, general City news, and more.



Do Your Part to Conserve Water:

- Use drip irrigation for plants and gardens, and water early in the morning to minimize evaporation.
- Collecting rainwater for landscape use is great for the plants and can save water and money.
- Install faucet aerators to cut in half the amount of water used by each faucet.
- Fix faucet leaks. A faucet leak can waste up to 3,000 gallons of water a year.
- Install water-efficient plumbing fixtures to reduce water consumption by 25% to 60%.
- Check your toilet for leaks by using a leak-detection dye table. Leaks can waste up to 200 gallons of water a day.
- Wash only full loads of laundry. This could save an average household more than 3,400 gallons of water each year.
- Invest in an ENERGY STAR-qualified clothes washer, which typically uses 50% less water and 30% less energy per load.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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 or wildlife; *Inorganic Contaminants*, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses; *Organic Chemical Contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which may also come from gas stations, urban stormwater runoff, and septic systems; *Radioactive Contaminants*, which can be naturally occurring or may be the result of oil and gas production and mining activities.

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 our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at 800.426.4791.

Questions?

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



City of Pearland
3519 Liberty Dr.
Pearland, TX 77581

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono 281.652.1900.

Recycled and Recyclable

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

DISINFECTANTS AND DISINFECTION BY-PRODUCTS	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	CITY OF PEARLAND		CITY OF PEARLAND MUD 1		CITY OF HOUSTON		CLEARBROOK CITY MUD		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Alkalinity	2009	NA	NA	248	36-488	NA	NA	164	36-222	293	97-391	No	Naturally occurring soluble mineral salts
Hardness	2009	NA	NA	88	39-197	NA	NA	136	43-197	102	54-151	No	Naturally occurring calcium
"Haloacetic Acids (HAA5) (ppb)	2013	60	No goal for the total	7	0-38.1	3	0-5.5	16	0-32	22	10.1-33.7	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2013	80	No goal for the total	7	0-35	11	0-12.9	25	7.2-43.3	29	13.6-35.8	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	Amount Detected	Range-Low-High	Violation	Typical Source
Arsenic (ppb)	6/13/12	10	0	4.8	4.8-4.8	NA	NA	5	0-8.4	NA	NA	No	Erosion of natural deposits; runoff from ordards; runoff from glass and electronics production wastes
Asbestos (MFL)	1/31/12	7	7	0.1952	0.1952-0.1952	NA	NA	NA	NA	NA	NA	No	Decay of asbestos cement water main; erosion of natural deposits.
Barium (ppm)	6/13/12	2	2	0.208	0.208-0.208	NA	NA	0.383	0.047-0.383	0.0586	0.0586-0.0586	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Flouride (ppm)	2013	4	4	0.5	0.48-0.48	NA	NA	0.6	0.21-0.66	0.53	0.53-0.53	No	Discharge from pharmaceutical and chemical factories
Nitrate (measured as Nitrogen) (ppm)	2013	10	10	1	0-0.6	NA	NA	0.64	0-0.64	0.26	0.01-0.26	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate (measured as Nitrogen) (ppm)	2013	10	10	NA	NA	NA	NA	0.04	0-0.04	0.01	0-0.01	No	Runoff from fertilizer use; leaching from septic tanks, sewage; 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	Amount Detected	Range-Low-High	Violation	Typical Source
Combined Radium 226/228 (pCi/L)	9/19/11	5	0	3.7	1.4-3.7	NA	NA	2	1.5-2.0	2.1	1-2.1	No	Erosion of natural deposits.
Gross alpha excluding radon and uranium	6/13/12	0	15	3.6	3.6-3.6	NA	NA	4	4-6.5	2.1	0-2.1	No	Erosion of natural deposits.
Uranium (ug/1)	6/13/12	0	15	NA	NA	NA	NA	4	3.8-4.0	NA	NA	No	Erosion of natural deposits.
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	Amount Detected	Range-Low-High	Violation	Typical Source
Atrazine (ppb)	2013	3	3	NA	NA	NA	NA	0.42	0-0.42	0.29	0.29-0.29	No	Runoff from herbicide used on row crops
D (2-ethylhexyl) phthalate (ppb)	2013	6	0	NA	NA	NA	NA	1	0-0.63	NA	NA	No	Discharge from rubber and chemical factories
Simazine (ppb)	2013	4	4	NA	NA	NA	NA	0.17	0-0.17	0.15	0.15-0.15	No	Herbicide runoff
Turbidity	Year Sampled	Limit (Treatment Technique)	MCLG (MRDLG)	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Amount Detected	Range-Low-High	Violation	Typical Source
Turbidity-Highest single measurement (NTU)	2013	TT	NA	NA	NA	NA	NA	9.68	NA	NA	NA	No	Soil runoff
Turbidity-Lowest Monthly % meeting limit (NTU)	2013	TT	NA	NA	NA	NA	NA	96.12%	NA	NA	NA	No	Soil 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	Amount Detected (90th Percentile)	Sites above AL/Total Sites	Violation	Typical Source
Copper (ppm)	9/29/12	1.3	1.3	0.467	0/50	0.493	0/20	2.55	0/50	0.341	0/30	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing system
Lead (ppb)	9/29/12	15	0	2.3	0/50	1.19	0/20	3.72	0/50	1.19	0/20	No	Corrosion of household plumbing systems; erosion of natural deposits
Coliform Bacteria	Year Sampled	Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive	Fecal Coliform or E. Coli Maximum Contaminant	Total Number of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination					
Coliform Bacteria City of Pearland	2013	0	5% of monthly samples are positive	1	0	0	0	Naturally present in the environment					
Coliform Bacteria City of Pearland MUD1"	2013	0	No positive samples	0	0	0	No	Naturally present in the environment					

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.

NA: 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.

Where Does My Water Come From?

The City of Pearland water production customers are fortunate because Pearland enjoys an abundant water supply from two sources. The water wells draw water from the Chico and Evangelist aquifers. The second source is water purchased from the City of Houston. Combined, the City's treatment facilities provide roughly 3.5 billion gallons of clean drinking water every year. Our water supply is part of the Gulf Coast Watershed. To learn more about our watershed on the Internet, go to the U.S. EPA Surf Your Watershed page at epa.gov/surf.

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.