



CITY OF PORT ARTHUR

Water Quality Report

REPORTING YEAR 2016

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

Meeting the Challenge

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2016. Over the years we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please share with us your thoughts or concerns about the information in this report. After all, well-informed customers are our best allies. For more information about this report, or for any questions relating to your drinking water, please call Clyde J. Trahan, Water Treatment Plant Superintendent, at (409) 983-3841.

Where Does My Water Come From?

Our drinking water is obtained from Surface water sources. It comes from the following Lake/River/Reservoir: Neches River Basin, Lower Neches Valley Authority Canal System, Port Arthur Reservoir.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell. During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank. Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

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.



Water Conservation

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water.



Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.



Turn off the tap when brushing your teeth.



Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.



Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Public Participation Opportunities

The Port Arthur City Council meets every other Tuesday in the Council Chambers of City Hall at 444 4th Street. For exact dates and times, contact the City Secretary's office at (409) 983-8115.

Superior Public Water System

Port Arthur is among several cities that have the highest and safest quality of water in the state. We received a Superior Public Water System status issued by the Texas Commission on Environmental Quality. We also received a Water Fluoridation Quality Award issued by the Centers for Disease Control and Prevention. The Water Plant is staffed with trained and state certified operators, that monitor the quality of water flowing through the plant. On occasion, problems will develop in the distribution system that may require us to turn water off and/or flush main lines. If you experience any unusual problems with the quality of your water, or need information, please call the Water Plant at (409) 983-3846. To report water leaks or sewer trouble calls dial (409) 983-8550. For billing inquiries call (409) 983-8230.

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 immuno-compromised 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.



Table 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 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.
- 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.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. According to the Source Water Assessment Plan, our water system had a susceptibility rating of medium. If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours.

Information on the Internet The U.S. EPA Office of Water (www.epa.gov/aboutepa/about-office-water) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health.

Lead in Home Plumbing

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. 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 www.epa.gov/safewater/lead.

- MRDLG** Maximum Residual Disinfectant Level Goal - 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
- NR** Not Regulated by the EPA
- ND** Not Detected
- NTU** Nephelometric Turbidity Units
- TT** Treatment Technique - A required process intended to reduce a contaminant level in drinking water

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 allows 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

Substance (units)	Year Sampled	MCL (MRDL)	MCLG (MRDL)	Amount Detected	Range Low-High	Violation?	Typical Source
Chloramines (ppm)	2016	(4)	(4)	3.7	2.5 - 4.0	No	Water additive used to control microbes
Fecal coliform & E. coli	2016	A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive.		0	N/A	No	Human and animal fecal waste
Fluoride (ppm)	2016	(4)	(4)	0.7	0.74 - 0.74	No	Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (ppm)	2016	10	10	0.19	0.19 - 0.19	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Turbidity 1 (NTU)	2016	TT	N/A	1.0	0.04 - 0.19	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2016	TT	N/A	100	N/A	No	Soil runoff

Substance (units)	Year Sampled	AL	MCLG	Amount Detected 90th%tile	Sites Above AL / Total Sites	Violation?	Typical Source
Copper (ppm)	2016	1.3	1.3	0.2	0 / 30	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	2016	0.015	0	2.4	2 / 30	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Tap water samples were collected for lead and copper analyses from sites throughout the community

Other Regulated Substances

Substance (units)	Year Sampled	MCL (MRDL)	MCLG (MRDL)	Amount Detected	Range Low-High	Violation?	Typical Source
Haloacetic Acids (HAA) - IDSE Results (ppb)	2016	60	N/A	23	2.7 - 31.1	No	By-product of drinking water disinfection
TTHMs (Total Trihalomethanes) - IDSE Results (ppb)	2016	80	N/A	29	8.2 - 44	No	By-product of drinking water disinfection

Substance (units)	Year Sampled	SMCL	MCLG	Amount Detected	Range Low - High	Violation?	Typical Source
Chloride (ppm)	2016	250	N/A	23	15 - 35		Runoff/leaching from natural deposits
Total Dissolved Solids (TDS) (ppm)	2016	500	N/A	98	90 - 175	No	Runoff/leaching from natural deposits
pH (Units)	2016	6.5 - 8.5	N/A	8	7.0 - 9.0	No	Naturally occurring

1 Footnote for the City of Port Arthur: Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

2 Footnote for the City of Port Arthur: The City has done so well with Lead and Copper monitoring that the State has reduced sampling requirements to once every three (3) years. The next scheduled sampling will occur in 2019.