



**2017 DRINKING WATER QUALITY REPORT  
CITY OF PASADENA PWS 1010293  
TCEQ SUPERIOR RATED WATER SYSTEM**

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

This report is intended to provide you with important information about your drinking water and the efforts made by the City of Pasadena to provide safe drinking water. The City of Pasadena's drinking water meets or exceeds TCEQ standards.

For more information regarding this report contact Rick Helton at (713)475-4935

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar at telefono (713)475-7286.

Water related problems such as leaks, low pressure, no water or water quality should be reported to the Mayor's Action Line at (713)475-5555.

**Public Participation Opportunities**

A Public Hearing concerning this report will be held:

Date: June 19, 2018

Time: 6 p.m.

Location: City Council Chambers

### Source of Drinking Water

The source 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 and through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material, can pick up substances resulting from the presence of animal or human activity.

### Where do we get our Drinking Water?

The source of drinking water used by the City of Pasadena includes purchased surface water and ground water from our wells. A Source Water Susceptibility Assessment for your drinking water is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based upon human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies. Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>.

<u>Source Water Name</u>	<u>Type of Water</u>
Southwest Water Treatment Plant	Surface Water
Richey Metering Station	Surface Water
Allen Genoa Metering Station	Surface Water
Cascade Water Well	Groundwater
Deepwater Water Well	Groundwater
Guthrie Water Well	Groundwater
Pansy Water Well	Groundwater
Red Bluff Water Well	Groundwater
Sycamore Water Well	Groundwater
Tulip Water Well	Groundwater
Westside Water Well	Groundwater

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 (800)426-4791.

Contaminants that may be present in source water include: **Microbial bile 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.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by products of industrial process 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.

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.

**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 the Water Production office at (713)475-4936.**

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 (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 our 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 Hot Water Hotline or at <http://www.epa.gov/safewater/lead>.

### 2017 Water Quality Test Results

#### Definitions and Abbreviations

Action Level – The concentration of a contaminant which, if exceeded, triggers treatment of other requirements which a water system must follow.

Action Level Goal – The level of a contaminant in drinking water below which there is no known or expected risk to health. AKGs 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 or 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 or MCLG – The level of a contaminant in drinking water below which there is no known or expected risk of health. MCLGs allow a margin of safety.

Maximum Residual Disinfectant Level or 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 or MRDLG – The level of a drinking water disinfectant below which there no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants

Mrem - millirems per year (a measure of radiation absorbed by the body)

MFL – million fibers per liter (a measure of asbestos)

na – not applicable

NTU – nephelometric turbidity units (a measure of turbidity)

pCi/L – picocuries per liter (a measure of radioactivity)

ppb – micrograms per liter per billion – or one ounce in 7,350,000 gallons of water

ppm – milligrams per liter or parts per million – or one ounce in 7,350,000 gallons of water

ppq – parts per quadrillion, or pictograms per liter (pg/l)

ppt – parts per trillion, or nanograms per liter (ng/l)

Treatment Technique or TT – A required process intended to reduce the level of a contaminant in drinking water.

**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	5% of monthly Samples Positive	0	0	0	0	Naturally Present in the Environment

Lead and Copper	Date Sampled	MCLG	Action Level	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/09/2016	1.3	1.3	.064	1	ppm	None	Erosion of natural Deposits; leaching From wood preservatives Corrosion household Plumbing
Lead	09/09/2016	0	15	4.8	1	ppb	None	Corrosion of household Plumbing systems and Erosion of natural deposit
<b>Disinfection by Products</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Individual Samples</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
Haloacetic Acids (HAAS)	2017	27	5.4 – 31.3	No Goal	60	ppb	None	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2017	35	16.5 – 54.2	No Goal	80	ppb	None	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Individual Samples</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
Arsenic	2017	2.7	0 – 2.7	0	10	ppb	NONE	Erosion of Natural deposits; Runoff from Orchards, glass Electronics and Production waste
Barium	2017	0.154	0.0541 – 0.154	2	1	ppm	None	Discharge of Drilling waste Discharge from Metal refineries

Inorganic	Collection Data	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Fluoride	2017	1	0.44 - 1.21	4	4.0	ppm	None	Erosion of Natural deposits Discharge from Fertilizer and Aluminum Factories
Nitrate (measured Nitrogen)	2017	1	0 - 0.7	10	10	ppm	None	Runoff from Fertilizer use Leaching from Septic tanks Erosion of Natural deposits
Nitrite (measured Nitrogen)	2017	1	0 - 0.5	1	1	ppm	None	Runoff from Fertilizer use Leaching from Septic tanks Erosion of Natural Deposits
Radioactive Contaminants	Collection Data	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/Photon Emitters	2017	5.8	0 - 5.8	0	4	mrem/y	None	Decay of natural and man made Deposits

\*EPA considers 50pCiL to be the level of concern for beta particles.

Synthetic Organic Contaminants Including Pesticides and Herbicides	Collection Data	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
2,4D	2017	.02	0 - 0.2	70	70	ppb	None	Runoff from Herbicide used on row crops
Atrazine	2017	0.2	0 - 0.2	3	3	ppb	None	Runoff from Herbicides used on row crops
Di	2017	1	0 - 1	0	6	ppb	None	Discharge from Rubber and Chemical Factories

The total water loss from the water system for 2017 was 10.2%.