



**2018 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, 2018 to December 31, 2018. 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 18, 2019

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>
Southeast 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. **Pesticides and Herbicides** which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

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>.

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 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 Coli or Fecal Coliform Samples	Violation	Likely Source of contamination
0	5% of monthly Samples	2.2	0	0	0	Naturally Present in the Environment

Lead and Copper	Date Sampled	MCLG	Action Level	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	01/11/2018	1.3	1.3	.0495	0	ppm	None	Erosion of natural Deposits: leaching From wood preservatives Corrosion household Plumbing
Lead	0/1/11/2018	.002		<.002	1	MG/L	None	Corrosion of household Plumbing systems and Erosion of natural deposit

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

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
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Haloacetic Acids (HAA5)	2018	34	8.8 - 47.7	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
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'* The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year'

Total Trihalomethanes (TTHM)	2018	47	26.8 - 70.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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'* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year'

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	05/16/2017	2.7	0 - 2.7	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	05/16/2017	0.154	0.0541 - 0.154	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	09/18/2017	0.54	0.54 - 0.54	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2018	1	0.01 - 0.69	10	10	ppm	N	Runoff from fertilizer use Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrite [measured as Nitrogen]	2018	0.08	0.01 - 0.08	1	1	ppm	N	Runoff from fertilizer use; Leaching septic tanks, sewage; Erosion of nat deposits.
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Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2018	0.12	0 - 0.12	3	3	ppb	N	Runoff from herbicide used on row

Disinfectant Residual

Disinfectant Residual

' A blank disinfectant residual table has been added to the CCR template, you will need to add data to the fields. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQOR).'

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2018	2.5	153	4	4	ppm	NO	Water additive used to control microbes.

A complete analysis of the City's water can be requested by calling (713)475-7286

The total water loss from the water system for 2018 was 8.5%.