# **Walnut Creek Special Utility District**

# 2019 Consumer Confidence Report for Public Water System Walnut Creek SUD January 1, 2019 to December 31, 2019

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Definitions and Abbreviations The following tables contain scientific terms and measures, some of which may require explanation.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements

which a water system must follow

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to

health. ALGs allow for a margin of safety

Average: 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.

Max 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.

Max Contaminant level goal or MCLG: 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.

Max 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.

Max residual disinfectant level goal or MRDLG:

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.

MFL: Million fibers per liter (a measure of asbestos)

mrem: millirems per year (a measure of radiation absorbed by the body)

na: not applicable

ppq:

NTU: Nephelometric Turbidity Units (a measure of turbidity)

picocuries per liter (a measure of radioactivity)

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

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

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.

# **Information About Your Drinking Water**

The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants <u>does not</u> necessarily indicate that water poses a <u>health risk</u>. 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 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.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by products of industrial processes and petroleum production, and 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 established 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 <u>are not</u> necessarily causes for <u>health concerns</u>. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised person 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 800-426-47991.

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 http://www.epa.gov/safewater/lead.

### **Information about Source Water**

**TCEQ** completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact <u>Walnut Creek SUD</u>.

Lead and	Data Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper								
Copper	11/13/2018	1.3	1.3	0.098	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing system.
Lead	11/13/2018	0	15	1.2	0	ppb	N	Corrosion of household plumbing
								systems; Erosion of natural deposits.

## **2019 Water Quality Test Results**

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MLC	Units	Violation	Likely Source of Contamination
Chlorite	2019	1.32	0.04 - 1.32	0.8	1	ppm	N	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	2019	39	25 – 56.3	No goal for	60	ppb	N	By-product of drinking water disinfection
				the total				

<sup>\*\*</sup>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	2019	69	42 – 106	No goal for	80	ppb	N	By-product of drinking water disinfection
TTHM)				the total				

<sup>\*\*</sup>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 of Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2019	1	1.2 – 1.2	0	10	ppb	N	Erosion of natural deposits; runoff from orchards, glass & electronics production wastes
Barium	2019	0.065	0.065 - 0.065	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2019	0.1	0.128 - 0.128	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)	2019	0.2	0.2 – 0.2	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

<sup>\*\*</sup>EPA considers 50 pCi/L to be the level of concern for beta particles.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	02/13/2017	5.9	5.9-5.9	0	50	pCi/L*	N	Decay of natural and man-made deposits.

<sup>\*</sup>EPA considers 50 pCi/L to be the level of concern for beta particles.

#### **Disinfectant Residual**

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit	Violation	Source in Drinking Water
Chloramine	2019	3.2	1.2 – 4	4	4	ppm	N	Water additive used to control microbes

## Turbidity

	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.4 NTU	1 NTU	N	Soil runoff
Lowest monthly % meeting limit	99%	0.3 NTU	N	Soil runoff

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

## **Total Organic Carbon**

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

#### **Violations**

#### Chlorite

Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE (CHLORITE)	09/01/2019	09/30/2019	Water samples showed that the amount of this contaminant in our drinking water was above its standard for the period indicated. Because of the contaminant and the sample locations, this posed an acute health risk.