

2016 Annual Drinking Water Quality Report

Pauls Valley Water Treatment Facility #1010808

We're very pleased to provide you with this year's Annual Drinking Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal has always been to provide to you with a safe and dependable supply of drinking water. This report shows our water quality and what it means.

****Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted o hable con alguien que lo entienda bien.**

Our water source is the R.C. Longmire Lake and The Old City Lake. An analysis of contamination susceptibility has been performed. The analysis reveals that our water's susceptibility to contamination is LOW, and possible sources of the contamination. (This plan is available for viewing in our office.) If you have any questions about this report, or concerning your water utility, please contact James Frizell at 405-238-3308. We want our valued customers to be informed about their water quality. Please feel free to attend meetings, held twice monthly at City Hall.

We routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2016 (Some of our data may be more than one year old because the state allows us to monitor for some contaminants less often than once per year.)

Parts per million (ppm) or Milligrams per liter (mg/l)

Parts per billion (ppb) or Micrograms per liter (ug/l)

Parts per trillion (ppt) or Nanograms per liter (nanograms/l)

Parts per quadrillion (ppq) or Picograms per liter (picograms/l)

Picouries per liter (pCi/L) - picouries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Action Level (AL) - the concentration of which, if exceeded, triggers treatment requirements which a water system must follow.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - The MCL is 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 -The MCLG is 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.

WATER QUALITY DATA						
Contaminant	Violation Yes/No	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria (System takes ≥40 monthly samples) (System takes <40 monthly samples) <i>(highest number of samples in a single month)</i>	N	N	0-0	5% positive 1 positive	0	Naturally present in the environment
2. Fecal coliform and E.coli <i>(highest number of samples in a single month)</i>	N	N	0-0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive	0	Human and animal fecal waste
3. Turbidity (NTU) <i>(highest single measurement)</i>	N	.03	1	TT = 1 NTU	N/A	Soil runoff
4. Turbidity (NTU) <i>(highest monthly level)</i>	N	.03	1	TT ≤ 0.3 NTU in 95% of monthly samples	N/A	Soil runoff
5. Total Organic Carbon	N	n/a	n/a	TT	N/A	Naturally present in the environment
Radiochemical Contaminants						

6. Gross Beta (pCi/L)	N	4.4	4.4-4.4	4	6	Decay of natural and man-made deposits
Inorganic Contaminants						
10. Antimony (ppb)	N	1.18	1.18-1.18	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
11. Arsenic (ppb)	N	.724	.724-.724	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
12. Barium (ppb)	N	.071	.071-.071	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
17. Chlorine (ppm)	N	1	0-1	MRDL = 4	MRDLG = 4	Water additive used to control microbes
21. Copper (ppm)	N	N	.28042	AL=1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
23. Fluoride (ppm)	N	.24	.24-.24	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
24. Lead (ppb)	N	4.72	4.72-4.72	AL=15 <i>Action Level 90% of samples must be below this level.</i>	0	Corrosion of household plumbing systems, erosion of natural deposits
26. Nitrate - NO ₃ (ppm) (as Nitrogen)	N	1	.58-.58	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants						
42. Haloacetic Acids (HAA5) (ppb)	N	3.81-20.8	10	60	N/A	By-product of drinking water chlorination
49. TTHM [Total trihalomethanes] (ppb)	N	42.1-73.8	65	80	N/A	By-product of drinking water chlorination

MCLs are set at very stringent levels. The EPA advises that a person would have to consume 2 liters of tap water every day of their life, when THM levels exceeded the limit, for approximately 70 years to have a significant increased risk of having the described health effects.

Contaminants that may be present in source water before we treat it 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 and residential uses.

**Radioactive contaminants*, which are naturally occurring.

**Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can come from gas stations, urban storm water runoff, and septic systems.

Microbiological Contaminants:

(1) Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially- harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

(2) Fecal coliform/E.Coli. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

(3) & (4) Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

(5) Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of developing cancer.

Radiochemical Contaminants:

Gross Beta. Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Inorganic Contaminants:

Chlorine--Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Copper--an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Lead--Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Nitrate--Infants below the age of six months who drink water containing nitrate in excess of the MCL, could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Volatile Organic Contaminants:

Haloacetic Acids. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

THMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

What does this mean?

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 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. 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. 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants 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. The Pauls Valley Water Treatment Plant 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 <http://www.epa.gov/safewater/lead>.

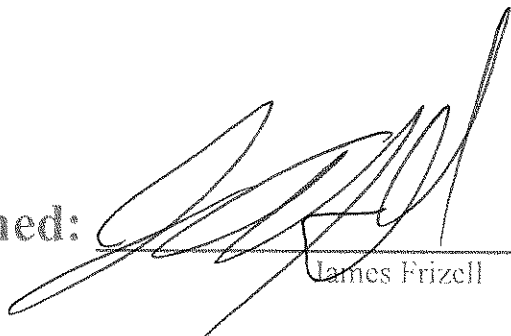
The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

Thank you for allowing us to continue providing your family with clean, quality water this year.

For further information contact:

James Frizell
238-3308

Signed:



James Frizell

4-25-17
Date