



# 2019 WATER QUALITY REPORT

## Who is my water company?

Did you know that there is more than one provider of water in the city of Goodyear? If you are unsure about which company is your water provider, call the city at 623-882-7887.

				City of Goodyear PWS 07-094				
Regulated Substances	units	MCL or MRDL	MCLG or MRDLG	year sampled	running average OR highest value	range low	high	violation
<b>Disinfectants &amp; Disinfectant By-Products</b>								
Chlorine (as Cl2)	ppm	4	4	2019	1.63	0.05	1.63	no
Haloacetic Acid (HAA5)	ppb	60	n/a	2019	3.8	1.6	5.3	no
THM's (total trihalomethanes)	ppb	80	n/a	2019	30	11	45	no
<b>Metals and Inorganic Compounds</b>								
Arsenic	ppb	10	0	2019	6.5	4	9.1	no
Antimony	ppb	6	6	2019	ND	ND	ND	no
Nitrate	ppm	10	10	2019	7.6	2.8	10	no
Barium	ppm	2	2	2019	0.092	0.048	0.16	no
Sodium (optional)	ppm	n/a	n/a	2019	121	85	140	no
Hardness (optional)	grains/gallon	n/a	n/a	2019	20	6	39	no
Fluoride*	ppm	4	4	2019	1.2	0.3	1.2	no
Selenium	ppb	50	50	2019	ND	ND	ND	no
Chromium	ppb	100	100	2019	9	7.2	11	no
*Goodyear does not fluoridate the drinking water; it is naturally occurring in the groundwater.								
<b>Microbiological</b>								
Total Coliforms	# of positive samples	5% positive monthly samples	0	2019	1	0%	2%	no
<b>Volatile Organic Chemicals (VOC)</b>								
Trichloroethylene	ppb	5	0	2019	1	0.62	1	no
<b>Synthetic Organic Chemicals (SOC)</b>								
2, 4-D	ppb	70	70	2019	0.0	0.012	0.012	no
<b>Radionuclides*</b>								
Gross Alpha	pCi/l	15	0	2019	5.7+/-0.4	2.9+/-0.3	5.7+/-0.4	no
Combined Radium 226 & 228	pCi/l	5	0	2019	0.5+/-0.2	0.5+/-0.2	0.5+/-0.2	no
Uranium	pCi/l	30	0	2019	6.9+/-1.1	6.9+/-1.1	6.9+/-1.1	no

\*For the 1st QRT 2019 compliance period for the city of Goodyear the lab results for Radionuclides were submitted 2 days past the required 10-day reporting window. All Radionuclides sample results for 1st QRT 2019 are below the MCL's for Radionuclides and there were no adverse health risks or effects related to this situation.

				Action level (90% of homes less than)				
units	MCLG	year sampled	Amt detected 90th %tile	range low	high	violation		
<b>Lead and Copper</b>								
Copper	ppm	1.3	1.3	2019	0.27	ND	0.3	no
Lead	ppb	15	0	2019	ND	ND	17	no

				Average or detected results				
units	year sampled	range low	high	violation				
<b>Unregulated Contaminants†</b>								
Perfluorooctanoic Acid (PFOA)	ppb	n/a	n/a	2014	ND	ND	ND	n/a
Perfluorooctanesulfonic Acid (PFOS)	ppb	n/a	n/a	2014	ND	ND	ND	n/a
Germanium	ppt	n/a	n/a	2019	483	390	690	n/a
Manganese	ppt	n/a	n/a	2019	190	50	410	n/a
1-butanol	ppb	n/a	n/a	2019	5.6	5.6	5.6	n/a

† Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring (UCMR) is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

n/a = non-applicable ND = non-detectable

Liberty Utilities PWS 07-046					
year sampled	running average OR highest value	range low	high	violation	major sources in drinking water
2019	1	1	1	no	Water additive used to control microbes
2019	3.2	<2.0	3.2	no	By-product of drinking water chlorination
2019	19.5	9.3	19.5	no	By-product of drinking water chlorination
2019	8	4	8	no	Erosion of natural deposits; Runoffs from orchards; Runoffs from glass and electronics production wastes
2019	0.5	ND	0.5	no	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
2019	8	3	8	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
2019	0.11	0.03	0.11	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
2019	89	62	180	no	Erosion of natural deposits; Leaching
2019	12.3	7	17.5	no	Erosion of natural deposits; Leaching
2019	1.27	0.39	1.27	no	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
2019	3	ND	3	no	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
2019	10	ND	10	no	Discharge from steel and pulp mills; Erosion of natural deposits
2019	0	0%	0%	no	Naturally present in the environment
n/a	n/a	n/a	n/a	no	Discharge from metal degreasing sites and other factories
n/a	n/a	n/a	n/a	no	Runoff from herbicide used on row crops
2019	4	2	4	no	Erosion of natural deposits
2019	ND	ND	ND	no	Erosion of natural deposits
2010	5	1.3	5	no	Erosion of natural deposits

Action level (90% of homes less than)					
year sampled	Amt detected 90th %tile	range low	high	violation	major sources in drinking water
2019	0.23	0.032	0.28	no	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
2019	ND	ND	ND	no	Corrosion of household plumbing systems; Erosion of natural deposits

Average or detected results					
year sampled	range low	high	violation		
2017	0.005	ND	0.024	n/a	
2017	0.006	ND	0.032	n/a	
2019	360	ND	490	n/a	
2019	50	ND	150	n/a	
n/a	n/a	n/a	na/	n/a	

Naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc core processing; used in infrared optics, fiber-optic systems, electronics and solar applications

Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient

Used as a solvent, food additive and in production of other chemicals



# 2019 WATER QUALITY REPORT

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. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants, call EPA Safe Water Drinking Hotline (800-426-4791).

## Important Health Information

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. City of Goodyear 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 <http://www.epa.gov/safewater/lead>.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If

you are caring for an infant, you should ask advice from your health care provider.

The following is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. This alert also has concern with bone disease. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease. Older children and adults may safely drink the water. Drinking water containing more than 4 mg/l of fluoride (the US Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The fluoride in the drinking water provided by the City of Goodyear averages 1.2 mg/l. Dental fluorosis in its moderate or severe forms may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem. For more information, please call Paul Pena, Environmental Compliance Supervisor at 623-882-7596. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International Consumer Information Office at 1-800-673-6275.\*

## The Source of Your Water

The City of Goodyear's drinking water source is 100% groundwater. The City has production wells, storage facilities, and pressure booster stations. The underground aquifer from which the City receives its water is called the West Salt Valley Sub-Basin. The City of Goodyear also purchases water from Liberty Utilities, which draws from the same West Salt Valley Sub-Basin Aquifer. The aquifer's depth ranges from 100 to 1,000 feet from the surface. With 12 well sites and ten booster stations, Goodyear's operating system has a storage capacity of 15.9 million gallons.

## Substances that could be in water

- The sources 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 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.
- Drinking Water Contaminants:
  - ◆ Microbial Contaminants: Such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife
  - ◆ Inorganic Contaminants: Such as salts and metals that 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: Such as agriculture, urban storm water runoff, and residential uses that may come from a variety of sources
  - ◆ Organic Chemical Contaminants: Such as synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.
  - ◆ Radioactive Contaminants: That can be naturally occurring or be the result of oil and gas production and mining activities.
- Source Water Assessment: Based on the information currently available on the hydrogeological settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the department has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the

source water protection measures will have little impact on protection. Further source water assessment documentation can be obtained by contacting ADEQ.

## Additional Comments

For the 1st QRT 2019 compliance period for the City of Goodyear the lab results for Radionuclides were submitted 2 days past the required 10-day reporting window. All radionuclides sample results for 1st QRT 2019 are below the MCLs for Radionuclides and there were no adverse health risks or effects related to this situation.

## Definitions/Abbreviations

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health.

**Maximum Residual Disinfectant Level (MRDL):** The Level of disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur.

**PPM:** Parts per million or Milligrams per liter (mg/L)

**PPB:** Parts per billion or Micrograms per liter (ug/L)

**PPT:** Part per trillion or Nanogram per liter (ng/L)

**Grains/Gallon:** Unit of water hardness

**Picocuries per liter (pCi/L):** Measure of the radioactivity in water

**Not Detected (ND or <):** Not detectable at reporting limit

**Not Applicable (NA):** Sampling was not completed by regulation or was not required.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien. Para español llame al 623-932-3010.