

2016 Water Quality Report

May 2017

Questions about your drinking water supply or this report?

If you have any questions about your tap water, the information in this report, or how to address the Tolleson City Council regarding the tap water quality, please call (623) 936-7111, during normal business hours for more information (8:00 a.m. to 4:00 p.m. , Monday through Friday, except holidays).

City Council meetings are typically on the 2nd and 4th Tuesday of every month.

To access a copy of the Water Quality report on line:

<http://www.tollesonaz.org>
(Select 1. City Departments 2. Utilities 3. Water Utilities) or directly at:

<http://www.tollesonaz.org/index.aspx?nid=81>

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Este reporte contiene informacion importante acerca del agua potable. Si usted desea preguntar algo en espanol por favor.

Llámenos al (623) 936-7111

Tolleson's Drinking Water Continues to Meet Health and Safety Standards

This report is required annually by the EPA to provide information to our residents on the sources of Tolleson's drinking water, general water quality information, and tables summarizing the analytical tests conducted on the City of Tolleson's potable water supply. 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. This year's report is from January 1, 2016 to December 31, 2016.

Water Quality

Certain quantities of some substances are essential to good health, but excessive quantities can be hazardous. Similarly, small quantities of some substances may have no effect on people, but large quantities can be harmful. 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 USEPA's Safe Drinking Water Hotline at (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than others in the general population. Immuno-compromised persons or 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

Where Does Our Water Come From?

The City of Tolleson has two major sources of water, ground water and purchased City of Phoenix water. The ground water is collected through a series of wells that tap the aquifer underlying Tolleson. Each well goes through a treatment process of electro-dialysis reversal osmosis (EDR). In the final stage of water treatment, a small quantity of disinfectant, sodium hypo-chlorite, is added to kill bacteria that may be in the water. The second source consists of two connections to the City of Phoenix's potable water system, which accounted for 90% of Tolleson's total drinking water in 2016. If you have questions about the quality of drinking water provided by the City of Phoenix, they can be reached at (602) 262-6251.



risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Source Water Assessment

In 2002, the Arizona Department of Environmental Quality (ADEQ) conducted a source water assessment (SWA) for the two drinking water wells for the City of Tolleson. The assessment outlined the potential risks to the city water system. The result of the SWA led to a high risk rating to the two well sources. This does not imply that the source water is contaminated nor does it mean that contamination is imminent. Rather, it simply states that land use activities or hydro geologic conditions exist that make the source water susceptible to possible future contamination. These risks may include, but are not limited to gas stations, landfills, dry cleaners, and agriculture fields.

The complete report is available for review at ADEQ, 1110 W. Washington St., Phoenix, AZ 85007 or by requesting an electronic copy from ADEQ at dml@azdeq.gov. For more information visit the ADEQ website at: www.azdeq.gov/environ/water/dw/swap.html or contact the City of Tolleson's Water Utilities Department at 623-478-8729.

The City of Tolleson also has two City of Phoenix potable water inner connections. For information on the City of Phoenix's SWA, please call City of Phoenix at 602-262-4992.

Consumer Confidence Report (CCR)

In 1996, Congress amended the Safe Drinking Water Act. It added a provision requiring that all community water systems deliver to their customers a brief annual water quality report. The report summarizes information that your water system already collects to comply with regulations.

The reports are based on calendar-year data, January-December. In 2001, and the years following, your community water system must deliver its report to consumers by July 1st.

More about water...

The City of Tolleson routinely tests the water that is produced, disinfected, and distributed to water customers to insure that it meets (and/or exceeds) all the applicable health and safety standards. This annual report summarizes the results of monthly, quarterly, semi-annual, and yearly tests required by the federal Safe Drinking Water Act, administered by the U.S. Environmental Protection Agency (EPA). Some are set at the

state and county level.

However, the department's mission goes far beyond providing high quality drinking water. The supply to customers also must be reliable and affordable and service must be responsive!

The department's staff continues to achieve all objectives through hard work and dedication to the concept that by any comparison, our employees will be the best.

Learning about the quality of water

The following tables show the substances for which the Water Service Department tests, the levels of substances found and the levels beyond which the substance is considered unsafe by the EPA, the Arizona Department of Environmental Quality, and the Maricopa County Environmental Services Department.

Please note, the simple presence of a substance or contaminant in drinking water does NOT necessarily indicate the drinking water poses a health risk.

Definitions of terms

The following are definitions of terms used to describe types of limits for substances that may be found in drinking water and reasons why compliance with the limits may be excused.

Maximum Contaminant Level Goal (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.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

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

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is required for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

Information about drinking water contaminants

The sources of drinking water (both tap water and bottled water) includes 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 animal or from human activity. Contamination that may be present in source water include:

(A) *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) *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.

(C) *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

(D) *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

(E) *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

CITY OF TOLLESON 2016 WATER QUALITY REPORT



City of Tolleson Distribution System:

Substance:	MCL	MCLG	Distribution System	Major Sources in Drinking Water
Total Coliform Bacteria	Presence of coliform bacteria in 5% or more of monthly samples	0.0	0% (0 out of the 84 samples were positive)	Naturally present in the environment
Fecal Coliform and E. coli	A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive	0.0	0.0%	Human and animal fecal waste

Detected Substances:

Substance:	Units	MCL	MCLG	City of Phoenix Water		City of Tolleson Ground Water		Major Sources in Drinking Water
				Low	High	Low	High	
Arsenic	ppb	10	0	ND	9 HRAA = 8	ND	ND	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	ppm	2	2	.1	.1	.015*	.021*	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	ppb	100	100	ND	45	4.0*	4.7*	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	ppm	4	4	.8	0.8	.086*	.1*	Erosion of natural deposits; Water additive, which promotes strong teeth.
Nitrate (as N)	ppm	10	10	ND	8	3.4	4.2	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Picloram	ppb	500	500	ND	.1	ND	ND	Some people who drink water containing picloramin in excess of the MCL over many years could experience problems with their liver.

*Results of Lead and Copper Sampling from Residential Water Taps

Substance:	Units	Action Level	MCLG	90%	Number of Sites above AL	Major Sources in Drinking Water
Copper	ppm	AL= 90% of taps must not exceed 1.3 ppm	1.3	.079	0 taps out of 20 taps sampled were above AL	Corrosion of household plumbing systems.
Lead	ppb	AL= 90% of taps must not exceed 15 ppb	0	2.9	0 taps out of 20 taps sampled were above AL	Corrosion of household plumbing systems.

Radioactive Contaminants:

Substance	Units	MCL	MCLG	City of Phoenix Water		City of Tolleson Ground Water		Major Sources in Drinking Water
				Lowest Level	Highest Level	Lowest Level	Highest Level	
Alpha Emitters	pCi/l	15	0	.2*	.2*	3.0	3.1	Erosion of natural deposits
Uranium	ppb	30	0	2*	2.0*	ND*	ND*	Erosion of natural deposits

City of Phoenix Disinfection By-product Monitoring

Substance	Units	MCL	MCLG	Lowest Level	Highest Level	Running Annual Average	Major Source in Drinking Water
Total Organic Carbon Removal	NA	TT=1 or Greater	NA	1.0	3.2	1.5 (lowest RAA)	Naturally present in the environment
Chlorine Dioxide	ppb	MRDL = 800	MRDL =800	ND	280	NA	Water additive as an oxidant
Chlorite	ppm	1	.8	ND	.7	.3 (highest Q avg)	By-product of drinking water treatment
Bromate	ppb	10	0	ND	ND	ND (highest RAA)	By-product of drinking water treatment

**City of Phoenix Unregulated Contaminants

Substance	Units	MCL	Lowest Level	Highest Level	Average	Major Source in Drinking Water
Molybdenum	ppb	None	1.3	1.6	1.5	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent.
Strontium	ppb	None	520	540	530	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Vanadium	ppb	None	14	16	15	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.
Chlorate	ppb	None	52	440	246	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine
Chromium, Total	ppb	100	.2	1.7	.5	Naturally-occurring element; used in making steel and other alloys; chromium-3 or chromium-6 forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation.
Chromium-6	ppb	None	.1	1.6	.4	Naturally-occurring element; used in making steel and other alloys; used for chrome-plating, dyes and pigments, leather tanning and wood preservation.

*Some of the data, though representative, are more than a year old. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. ** UCMR3 monitoring occurred in 2013-2015

CITY OF TOLLESON 2016 WATER QUALITY REPORT



City of Tolleson Disinfection By-product Monitoring in the Distribution System

Substance	Units	MCL	MCLG	Lowest Level	Highest Level	Highest Running Annual Average	Major Source in Drinking Water
Chlorine	ppm	MRDL=4.0	MRDL=4.0	.48	1.55	1.10	Water additive to control microbes
Total Trihalomethane (TTHM)	ppb	80 – Locational Running Annual Average	NA	30	75	61.8	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5)	ppb	60 – Locational Running Annual Average	NA	12.9	19.0	17.8	Byproduct of drinking water disinfection

Table includes compliance data collected under the new Stage 2 Rule.

To determine formation of Disinfection ByProducts in the distribution system, the city monitors for Trihalomethanes (THMs) and Haloacetic Acids (HAAs) which are DBPs that may cause long term health effects at certain concentrations. THMs and HAAs are sampled throughout the distribution system every 90 days. Then, a locational running annual average of all samples is calculated to determine compliance with the Maximum Contaminant Level (MCL). Based on sampling criterion, the city's locational running annual average was below the MCL.

Turbidity Monitored after Treatment at the Phoenix Water Treatment Plants					
Substance	Treatment Technique applies Instead of MCL	MCLG	High	Lowest Monthly %	Major Source in Drinking Water
Turbidity	No value can exceed 1 NTU and at least 95% of monthly measurements must be less than or equal to 0.3 NTU	N/A	.3 NTU	100% of monthly measurements were less than or equal to .3 NTU	Soil run-off

For a detailed description of monitoring by the City of Phoenix Water Treatment Plant, please the Phoenix Water Services' Customer Services Division at 602-262-6251.

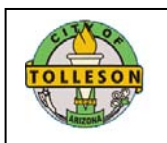
City of Tolleson Aesthetic Water Quality from the Distribution System					
Substance	Units	MCL	Secondary Guideline*	Lowest Detected Level	Highest Detected Level
pH	NA	NA	6.5 – 8.5	6.8	8.2
Temperature	°F	NA	NA	58	93
Total Dissolved Solids (TDS)	ppm	NA	500	372	934
Total Hardness	ppm	NA	NA	74	306

* Non-Enforceable Guidelines Recommended by EPA.

Abbreviations used in tables

NA – not applicable
 ND – not detected
 AL – action level
 HRAA – highest running annual average
 MCL – maximum contaminant level
 MCLG – maximum contaminant level goal
 MDL – method detection level
 pCi/l – picocuries per liter (a measure of radioactivity)
 ppm – parts per million, or milligrams per liter (mg/l)
 ppb – parts per billion, or micrograms per liter (µg/l)
 TT – treatment technique

In 2016, the City of Tolleson received 90% of its drinking water via wholesale water deliveries from the City of Phoenix.



Remember...

**Please Conserve Water.
Water is a Precious Resource!**

Free Water Conservation kits and information are available upon request; one kit per residence and business please.

623-478-8729

The complete City of Phoenix Water Quality Report may be accessed on the Internet at:

<https://www.phoenix.gov/waterservices/waterquality>

Or

By calling the Phoenix Water Services' Customer Services Division at:
602-262-6251

Water Related Sites:

EPA: <http://www.epa.gov/safewater/>
 ADEQ: <http://www.azdeq.gov/environ/water/index.html>
 ADWR: <http://www.azwater.gov/dwr/>
 CAP: <http://www.cap-az.com/>
 City of Tolleson: <http://www.tollesonaz.org/index.aspx?NID=81>
 City of Phoenix: <http://www.phoenix.gov/waterservices/>

Water Conservation Sites:

<http://www.srpnet.com/water/conservation.aspx>
<http://www.epa.gov/watersense/>
<http://www.wateruseitwisely.com/>
<http://www.adwr.state.az.us/dwr/Conservation/>

The Water Utilities Department will continue to strive to provide the residents and businesses of Tolleson with a safe drinking water supply while maintaining a customer friendly service.