

# 2009 Water Quality Report

April 2010

## Questions about your drinking water supply or this report?

If you have any questions about your tap water, or the information in this report please call (623) 936-7141, during normal business hours (7:00 a.m. to 3:00 p.m. , Monday through Friday, except holidays).

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

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

## Inside this issue:

What is a CCR?

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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) 936-7141

## 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. This year's report is from January to December 2009.

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

### 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



### 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](mailto:dml@azdeq.gov). For more information visit the ADEQ website at: [www.azdeq.gov/envirom/water/dw/swap.html](http://www.azdeq.gov/envirom/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.

water.

The second source consists of two connections to the City of Phoenix's potable water system, which accounted for 81% of Tolleson's total drinking water in 2009. If you have questions about the quality of drinking water provided by the City of Phoenix, they can be reached at (602) 262-6251.

## 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 2009 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	0.01%	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	NA	ND	8.4	ND*	ND*	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	ppm	2	2	.05	0.14	.015*	.017*	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	ppb	100	100	ND	50	34*	36*	Discharge from steel and pulp mills; Erosion of natural deposits.
Di (2-ethylhexyl) phthalate	ppb	6	0	ND	2.3	N/A	N/A	Common laboratory and field contaminant; Discharge from rubber and chemical factories.
Fluoride	ppm	4	4	.24	0.76	.35*	.52*	Erosion of natural deposits; Water additive, which promotes strong teeth.
Nitrate (as N)	ppm	10	10	ND	6.3	2.0	3.2	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	ppb	50	50	ND	4	NA	NA	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

## Results of Lead and Copper Sampling from Residential Water Taps

Substance:	Units	Action Level	MCLG	Low	High	Major Sources in Drinking Water
Copper	ppm	AL= 90% of taps must not exceed 1.3 ppm	1.3	.063	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	3	0 taps out of 20 taps sampled were above AL	Corrosion of household plumbing systems.

\*Some of our 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.

## 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	ND	1.8	2.3	3.2	Erosion of natural deposits
Uranium	ppb	30	0	ND	3.2	ND	ND	Erosion of natural deposits

### Water Related Sites:

EPA: <http://www.epa.gov/safewater/>  
 ADEQ: <http://www.azdeq.gov/envirom/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/>

# CITY OF TOLLESON 2009 WATER QUALITY REPORT



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

Substance	Units	MCL	MCLG	Lowest Level	Highest Level	Running Annual Average	Major Source in Drinking Water
Chlorine	ppm	MRDL=4.0	MRDL=4.0	.42	1.53	.89	Water additive used to control microbes
Total Trihalomethane (TTHM)	ppb	80 - Running Annual Average	NA	.94	97	44	By-product of drinking water disinfection.
Haloacetic Acids (HAA)	ppb	60 - Running Annual Average	NA	ND	35	13	By-product of drinking water disinfection.

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 quarter. Then, a running annual average of all samples is calculated to determine compliance with the Maximum Contaminant Level (MCL). Based on those sampling criterion, the city's 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

### 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	6.7	8.2
Temperature	°F	NA	NA	55	89
Total Dissolved Solids (TDS)	ppm	NA	500	280	720
Total Hardness	ppm	NA	NA	38	310

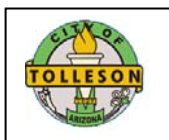
\* Non-Enforceable Guidelines Recommended by EPA.

#### Abbreviations used in tables

NA - not applicable  
 ND - not detected  
 AL - action level  
 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

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.

**In the year 2009, the City of Tolleson received 81% 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:

<http://www.phoenix.gov/WATER/qualrept.html>

Or

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

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.