



CITY OF PRESCOTT PWS 13-045

2009 ANNUAL DRINKING WATER QUALITY REPORT

(FOR CALENDAR YEAR 2008)

Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.

The City of Prescott's Drinking Water and Applicable Federal and State Requirements

The United States Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ) require purveyors of drinking water to annually report the quality of the water they deliver. The annual report provides information to customers to assist them in making decisions regarding their drinking water consumption.

This report identifies the sources of Prescott's drinking water, provides water quality information, and

summarizes analytical tests of the City's drinking water supply for Calendar Year 2008.



During 2008, with the exception of arsenic, for which the City is installing reduction treatment promulgated by the State of Arizona,

water from the City system met all other applicable EPA and state drinking water health standards. The City of Prescott safeguards its water supplies, and once again is pleased to report compliance with prescribed maximum contaminant levels and other water quality standards. The City regularly conducts testing beyond the minimum regulatory requirements to further assure the safety of our drinking water.

Where to learn more about your drinking water

- ◆ Specific information about this report can be obtained by contacting City of Prescott Water Operations Superintendent, Harry E. Brown at (928) 777-1118, or accessing the City of Prescott website: www.cityofprescott-az.gov
- ◆ Environmental Protection Agency Safe Drinking Water Hotline (800) 426-4791
www.epa.gov/safewater
- ◆ Arizona Department of Environmental Quality (800) 234-5677
www.adeq.state.az.us/environ/water/dw/health.html

Water related topics are discussed at City Council meetings and in other forums in which the public can participate. Meeting notices are published in the local newspaper and posted at City Hall, 201 S. Cortez Street, Prescott, Arizona.

What Is The Source Of Our Drinking Water?

The City of Prescott produces its water from wells in Chino Valley drilled into the confined deep Lower Volcanic Unit of the aquifer underlying the Little Chino Sub-Basin. The water is of excellent quality with a production yield from 420 to 3,300 gallons per minute. The wells are pumped in different combinations to meet daily demand. In 2008 the City of Prescott produced (pumped) 7,374 acre-feet of water from the wells and delivered



this water to approximately 22,107 customers through 400 miles of pipeline and 30 water storage tanks throughout its service area.

The most frequently asked question about water quality is hardness. Our water is considered moderately hard, averaging 112 to 119 ppm, which equals 6.5 to 7 grains per gallon. Water above 10 grains per gallon is considered hard and water less than 3 grains per gallon is considered soft.

Is My Water Treated?

The City of Prescott treats its water with chlorine to prevent the development of bacterial contamination that could occur in the water storage, transmission, and distribution system. No problems with bacterial contamination have been experienced.

If a chlorine taste or odor is detected, a container of water can be placed in the sunlight for two hours or stored overnight in the refrigerator to help dissipate the chlorine taste or odor. If a very strong chlorine taste or odor is detected, please contact Harry E. Brown, Water Operations Superintendent, at (928) 777-1118 and a technician will be sent out to take a chlorine residual sample from the reported location.

Water Quality Data

The Water Quality Table on Page 5 contains the most recent analysis for 2008. The frequency of sample collection is determined by state and federal regulations and based on many different parameters such as type of water source, number of people served, as well as past and current analyses of the contaminant to be tested. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk.

To help you understand the results and how they compare with the regulations, the following definitions are given:

- ◆ **Maximum Contaminant Level (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 technology.
- ◆ **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 Residual Disinfection Level (MRDL):** The highest level of a disinfectant allowed in drinking water. Convincing evidence exists that the addition of a disinfectant is necessary for control of microbial contaminants.

- ◆ **Maximum Residual Disinfectant Level Goal (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.
- ◆ **Action Levels:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a community water system must follow.

Results of water testing are listed in the table for 2007, 2008 and 2009. These results reflect the various intervals of monitoring required by the most recent drinking water regulations. The State of Arizona requires monitoring of some contaminants on a less frequent interval, such as once every three years, since the concentrations are not expected to vary significantly from year to year. This explains why some data may be more than one year old.

The City of Prescott is required to test for unregulated contaminants. The data generated by these tests will be used by the EPA to evaluate and prioritize contaminants on the Drinking Water Contaminant Candidate List. None of the unregulated contaminants tested have been detected in the City's drinking water. If you would like to learn more about the monitoring results, please contact the Utilities Operations Division.

How Safe Is The Water?

All 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 a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised individuals, such as those undergoing chemotherapy or other treatments, persons who have un-

dergone organ transplants, people with HIV/AIDS or other immune system disor-



ders, some elderly, and infants can be particularly at risk from infections. These individuals 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 (800-426-4791).

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 transport substances associated with the presence of animals or human activity. Wells are the only source of water for the City of Prescott.

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 or 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 which may come from a variety of sources such as agriculture, urban storm water runoff or residential uses.
- ◆ Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- ◆ Radioactive contaminants that can be naturally-occurring or the result of oil and gas production or mining activities.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. United States Food and Drug Administration regulations establish limits for contaminants in bottled water.



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All sample dates are in accordance with the ADEQ monitoring periods set forth for the City of Prescott Water System.

Abbreviations:

MCL	Maximum Contaminant Level	pCi/L	Picocuries per Liter	1.0 mg/l = 1.0 ppm
MCLG	Maximum Contaminant Level Goal	NA	Not Applicable	0.001 mg/l = 1.0 ppb

Primary Drinking Water Standards - Mandatory Health-Related Levels Established by EPA and ADEQ

Parameter	Date	Unit	MCL	MCLG	Highest Level	Range
Lead & Copper						
					Highest Detected Level	
Lead Results - Homes	2007	ppb	15	0	4	0 - 4
Copper Results - Homes	2007	ppm	1.3	1.3	0.115	0.011 - 0.115
RadioChemical Monitoring						
					Highest Average	
Gross Alpha	2007	pCi/l	15	0	1.8 +/-0.6	1.4 - 2.5 +/- 0.6
Combined Radium	2007	pCi/l	5	0	NA	NA
Regulated Inorganic Compounds						
					Highest Detected Level	
Arsenic	2008	ppb	10	10	17 *	6 - 17 *
<p>* The Arsenic result of 17 ppb was a sample taken from Well #6. This well was never used as a water supply during 2008. Well #6 was only pumped to gather a sample for analysis to meet ADEQ reporting requirements. The City of Prescott has since completed the installation of Arsenic reduction equipment on Well #6. All water supplied to customers during 2008 was at or below the Arsenic Compliance Level of 10 ppb.</p>						
Barium	2009	ppm	2	2	< 0.01	< 0.01
Chromium	2009	ppm	0.1	0.1	0.008	0.007 - 0.008
Fluoride	2009	ppm	4	4	0.37	0.27 - 0.37
Nitrate (as N)	2009	ppm	10	10	2.3	1.16 - 2.30
Nitrite	2009	ppm	1	1	< 0.10	< 0.10
Regulated Organic Compounds						
					Highest Detected Level	
Di(2-ethylhexyl) Phthalate	2009	ppm	0.006	0	< 0.0006	< 0.0006
Tetrachloroethylene	2009	ppm	0.005	0	< 0.0005	< 0.0005
Toluene	2009	ppm	1	1	< 0.0005	< 0.0005
Styrene	2009	ppm	0.1	0.1	< 0.0005	< 0.0005
Trans-1,2-Dichloroethylene	2009	ppm	0.1	0.1	< 0.0005	< 0.0005
Trichloroethylene	2009	ppm	0.005	0	< 0.0005	< 0.0005
Vinyl Chloride	2009	ppm	0.002	0	< 0.0005	< 0.0005
1,2,4-Trichlorobenzene	2009	ppm	0.07	0.07	< 0.0005	< 0.0005
Dichloromethane	2009	ppm	0.005	0	< 0.0005	< 0.0005
Xylenes, Total	2009	ppm	10	10	< 0.0015	< 0.0015
Disinfection Byproduct Monitoring						
					Highest Average	
Total Trihalomethane (TTHM)	2008	ppb	80	0	3.8	1 - 19
Haloacetic Acids (HAA5)	2008	ppb	60	NA	< 2	< 2
Biological Monitoring						
		MCL	MCLG	Entire Distribution System		Likely Source in Drinking Water
Total Coliform - tested monthly	Presence in no more than 5% of monthly samples		0	Highest monthly percentage of positive Total Coliform samples: 1 in 53, i.e., 1.9%		Naturally present in the environment



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Violations

The City of Prescott Water System received no violations during calendar year 2008.

Additional Health Information—Arsenic

Your drinking water may not meet the new EPA standard of 10 parts per billion (10 ppb) which became effective January 23, 2006. In accordance with EPA/State of Arizona implementation of the new standard, the City of Prescott installed arsenic reduction treatment to assure compliance by January 23, 2009. 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. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Additional information is available from the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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