



# CITY OF PRESCOTT PWS 13-045

## 2010 ANNUAL DRINKING WATER QUALITY REPORT

### (FOR CALENDAR YEAR 2009)

*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 2009.



During 2009, water from the City system met all 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.prescott-az.gov](http://www.prescott-az.gov)
- ◆ Environmental Protection Agency Safe Drinking Water Hotline (800) 426-4791  
[www.epa.gov/safewater](http://www.epa.gov/safewater)
- ◆ Arizona Department of Environmental Quality (800) 234-5677  
[www.azdeq.gov/environ/water/index.html](http://www.azdeq.gov/environ/water/index.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 2009 the City of Prescott produced (pumped) 7,084 acre-feet of water from the wells and delivered this water to approximately 22,399 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 113 to 127 ppm, which equals 6.6 to 7.4 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?

Arsenic treatment systems have been installed at the wells to treat and maintain arsenic levels below the new federal standard. The City of Prescott also treats its water with chlorine to prevent the development of bacterial contamination that could occur in the water storage and distribution systems.

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.

## 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.

## Water Quality Data

The Water Quality Table on Page 5 contains the most recent analysis for 2009. 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 through 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.



# Water Quality Report

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	3	<0.002 - 3
Copper Results - Homes	2007	ppm	1.3	1.3	<0.01	<0.01
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	2009	ppb	10	0	8.7	3.2 - 8.7
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	5.7	1.3 - 5.7
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: 0 in 53, i.e., 0%		Naturally present in the environment



# Water Quality Report

## Violations

The City of Prescott Water System received no violations during calendar year 2009.

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

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