2009 City of El Mirage Water Quality Report

PUBLIC WATER SYSTEM: AZ04-07-091

The City of El Mirage is again pleased to present its Annual Water Quality Report for calendar year 2009. This report explains how drinking water provided by City of El Mirage is of the highest quality. Included is a listing of results from required water quality tests as well as an explanation of where our water comes from, how to interpret the data and useful conservation tips.

Our staff is proud to inform you that our compliance with all state and federal drinking water regulations meets or exceeds established water quality standards. In addition to the required testing that we perform, the results of which are provided in this report; and our system operators routinely monitor for additional substances and microscopic organisms to ensure our water is safe. We are committed to providing, clean, quality, drinking water to serve the needs of all our water customers and continually strive to adopt new and innovative improvement methods for delivering the highest quality drinking water to your tap.

Information about Drinking Water

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. The Food and Drug Administration regulations establish limits for contaminants in bottled water. 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 in tap water and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). Information on bottled water can be obtained from the Food and Drug Administration. The 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 pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include the following:

(A) Microbial contaminants, such as viruses and bacteria that may be from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife.

(B) 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.

(C) Pesticides and herbicides that 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 organics that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

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

Interesting Fact:

Did you know in 2009, the City of El Mirage distributed approx. 1.7 billion gallons of ground water to serve its El Mirage and Surprise customers?

El Mirage Drinking Water Quality

The following tables show regulated substances that were required to be tested and were detected in El Mirage drinking water in 2009. The tables contain the name of each substance, the highest level allowed by regulation, the ideal goals for public health, the amount detected, and the usual sources of such contamination. Certain contaminants are required to be monitored less than one time per year because concentrations of these contaminants are not expected to vary significantly from year to year. For those contaminants that were not required to be tested in 2009, this report includes data from the most recent required testing done within the last five years.

Definitions and Acronyms

To help you understand the terms and abbreviations used in this report tables, we have provided the following definitions.

(AL) Action Level: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a community water system shall follow.

(CFU) Colony Forming Units: A measure of microbial quantity.

(MCL) Maximum Contaminant Level: 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 treatment technology.

(MCLG) Maximum Contaminant Level Goal: 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.

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

(MRDLG) Maximum Residual Disinfectant Level Goal: 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.

(MPL) State Assigned Maximum Permissible Level

(NA) Not applicable

(ND) Non-Detect: Not detected in sample.

(PPM) Parts per million or milligrams per liter (mg/l)

(PPB) Parts per billion or micrograms per liter (ug/l)

(pCi/L) Picocuries per liter: A measure of radioactivity

(RAA) Running Annual Average of 12 consecutive months

(TT) Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Substance	MCL	MCLG	Unit	Result	Violation (Yes or No)	Sample Date	Major Source
Total Coliform Bacteria for Systems that collects > 40 samples per month	No more than 5% of monthly samples can be positive	0	Absent or Present	**Absent**	**No**	40 samples per month	Naturally present in the environment

Substance	MRDL	MRDLG	Units	Level Detected	Violation (Yes or No)	Sample Date/Year	Major Source
Chlorine	4	4	ppm	**0.80**	**No**	RAA	Water additive used to control microbes

Substance	MCL	MCLG	Units	Average	Range	Highest RAA	Violation (Yes or No)	Sample Date/Year	Major Source
Total Trihalomethanes (TTHM)	0.080	N/A	ppm	0.0048	0.0026 0.0070	0.00048	**No**	07/10/2009	By-product of drinking water disinfection
Haloacetic Acids (HAA)	.060	N/A	ppm	<0.0020	<0.0020 <0.0020	<0.0020	**No**	07/10/2009	By-product of drinking water disinfection

Substance	MCL	MCLG	Units	Level Detected	Violation (Yes or No)	Sample Date	Major Source
Nitrate (as Nitrogen)	10	10	ppm	**2.51**	**No**	08/13/2009	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Twenty-one Volatile Organic Chemicals (VOC) were sampled and tested on three of the eight City wells. All results were reported as non-detect.

For your information, the compiled list in the tables above show what substances were detected in our drinking water during 2009
All results were below the maximum contamination level (MCL),Action Level (AL) or Non-Detect (ND)

El Mirage partners with Valley cities in this campaign to promote clean water. Learn more on how to stop water pollution by visiting: www.azstorm.org

Some Conservation Tips For Your Home

Garden Watering Tips

To save water and to give your plants the maximum benefit it is best to water out of direct sunlight, i.e., in the evening. This will cut down on water loss due to evaporation. Avoid sprinklers, which use water indiscriminately, and try to target the water precisely where it is most needed.

Check your toilets for leaks

Put a little food coloring in your toilet tank. If, without flushing, the color begins to appear in the bowl within 30 minutes, you have a leak that should be repaired immediately. Most replacement parts are inexpensive and easy to install.

Hose and Watering Ideas

Use a nozzle which can be shut off or adjusted to fine spray. When finished, shut off at the house instead of at nozzle to avoid leaks. Consider a water-saving drip irrigation system which provides a slow steady supply of water to garden and shrubbery.

Chilled Drinking Water

Store drinking water in the refrigerator. Don't let the tap run while you are waiting for cool water to flow.

Additional Health Information

Arsenic - While your drinking water meets EPA's standard for arsenic and is less than the MCL, 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.

Lead - If present, elevated levels of lead can cause health problems. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's 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 elevated lead levels in your home's 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 (800-426-4791) or at: http://www.epa.gov/safewater/lead.

Nitrate - Nitrate in drinking water at levels above 10 ppm is a health risk for infants 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, and detected nitrate levels are above 5 ppm, you should ask for advice from your healthcare provider.

Special Information for Immune-compromised People

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons 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. To receive a copy off 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 the EPA *Safe Drinking Water Hotline at* (800-426-4791).

Unregulated Contaminants

Unregulated Contaminant Monitoring Regulation is a tool for the U.S. Environmental Protection Agency (EPA) to find unregulated contaminants of concern in the nation's drinking water. The EPA requires all public water systems to participate and to collect samples of drinking water and have them tested for the contaminants. El Mirage tested for 10 contaminants: 1, 3-dintorbenzene, 245-HBB, BDE-100, BDE-153, BDE-99, dimethoate, RDX, terbufos sulfone and TNT during May 2009 and November 2009. All samples were non-detect for the contaminants.

Volatile Organic Chemicals (VOC)

The City of El Mirage is required to monitor drinking water on a regular basis for specific contaminants. Results of such regular monitoring indicate the water quality and ensure health standards are met. During the 2009 sampling monitoring period VOCs, Ethyl benzene and Xylenes Total were not sampled for at Well Source EPDS001, and therefore we cannot be sure of the quality of your drinking water during that time concerning these contaminants for this source. Results from samples taken prior to this occurrence and all subsequent sample results were within allowable MCL limits.

Frequently Asked Questions

What is the hardness of my water?

The range for hardness was 60 ppm to 150 ppm with an average of 89 ppm or 5.2 grains per gallon.

What is the Fluoride level of my water?

There is a between 0.3-1.34 ppm (parts per million) of naturally occurring fluoride in our local source water. The EPA has set a maximum allowable limit for fluoride in drinking water at 4.0 ppm.

Why are my ice cubes cloudy?

Commercially made ice is stirred as it is being frozen and household ice is not. Without mixing, many more ice crystals form and air is trapped in the ice. Light rays are distorted by these crystals and this distortion gives home frozen ice a cloudy appearance. Dissolved minerals (calcium and magnesium) in the water also tend to settle out when the water freezes.

Source Water Assessment Summary

The City of El Mirage Water System is supplied solely by groundwater. There are 8 wells that recover water from the Agua Fria Aquifer.

Based on a mandate set forth in the 1996 amendments to the Safe Drinking Water Act, Arizona Department of Environmental Quality (ADEQ) evaluated each water source used by public water systems in Arizona. The quality of ground water, in El Mirage, being drawn was assessed along with land use activities and hydrogeology and showed no risk of contamination from pollutants. ADEQ gave the City of El Mirage Water System wells a **low risk designation**.

Source Water Assessments are on file with the Arizona Department of Environmental Quality are available for public review. If a Source Water Assessment is available, you may obtain a copy of it by contacting the Arizona Source Water Coordinator at (602) 771-4641.

Get Involved Locally

You as a citizen of El Mirage can have a voice in the decisions made regarding the El Mirage drinking water system. You can attend and participate in City Council meetings. The City Council meets on the second Thursday of each month at the Municipal Court located at 14010 North El Mirage Road.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this Water Quality Report to them by posting it in a conspicuous location or by direct hand or mail delivery.

"We want you, our valued customer, to be informed about the services we provide and the quality of water we deliver to you every day".

For more information about this report, or for any questions relating to your drinking water, please contact Jamie McCullough, Environmental Compliance Coordinator, at 623-935-6405 or visit our website at www.cityofelmirage.org.

Water, Use it Wisely

El Mirage partners with Valley cities in this campaign to promote easy ways to save water. Learn more on how to make wise water decisions by visiting: www.wateruseitwisely.com.

WATER USE IT WISELY®

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