



2008 CITY OF EL MIRAGE



WATER QUALITY REPORT

The City of El Mirage is pleased to present its Annual Water Quality Report for calendar year 2008. 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 once again 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, 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 2008, the City of El Mirage distributed approx. 1.7 billion gallons of water to serve its El Mirage and Surprise customers from its groundwater wells?

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 2008. 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 2008, 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	0.011	0.0039 0.0199	0.0199	No	06/26/2008	By-product of drinking water disinfection
Haloacetic Acids (HAA)	.060	N/A	ppm	<0.0020	<0.0020 <0.0020	<0.0020	No	06/26/2008	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	2.34	No	1/28/2008 8/27/2008	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits		
Substance	MCL	MCLG	Units	Level Detected	Violation (Yes or No)	Sample Date	Major Source		
Radium 226/228 (combined)	5	0	pCi/L	0.23 ± 0.1	No	01-28-2008	Erosion of natural deposits		
Gross Alpha	15	0	pCi/L	1.0 ± 0.9	No	01-28-2008	Erosion of natural deposits		
Total Uranium	30	0	ppb	2.0 ± 0.7	No	01-28-2008	Erosion of natural deposits		

For your information, the compiled list in the tables above show what substances were detected in our drinking water during 2008

All results were below the maximum contamination level (MCL), Action Level (AL) or Non-Detect (ND)

SOME CONSERVATION TIPS FOR YOUR HOME

WATER YOUR LAWN ONLY WHEN IT NEEDS IT

A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. If it stays flat, the lawn is ready for watering. Letting the grass grow taller (to 3") will also promote water retention in the soil.

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.

CHECK FAUCETS AND PIPES FOR LEAKS

A small drip from a worn faucet washer can waste 20 gallons of water per day. Larger leaks can waste hundreds of gallons.

DON'T RUN THE HOSE WHILE WASHING YOUR CAR

Clean the car using a pail of soapy water. Use the hose only for rinsing - this simple practice can save as much as 150 gallons when washing a car. Use a spray nozzle when rinsing for more efficient use of water.

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 Immuno-compromised People

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-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 of 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 contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. El Mirage is scheduled for monitoring for 2 events in 2009.

Frequently Asked Questions

Why is my water sometimes cloudy?

Typically milky, cloudy water is the result of air in the water distribution system. The cloudiness is formed by millions of tiny air bubbles that disappear in a matter of 2-3 minutes. As the bubbles surface to the top, the water becomes clear

What is the hardness of my water?

The range for hardness was 60 ppm to 150 ppm with an average of 89.13 ppm or 5.2 grains per gallon.

Why would my sink have a odor?

To make sure it is not the water, take a clean glass jar and lid, fill the jar about 3 quarters full cap immediately, step into another room remove the lid and smell the water. If you cant smell anything, the odor is not coming from your water, but from the drain lines beneath sink. The problem is dirt, grime, mold; etc settling in the drain on its way to the sewer causing a layer of odor causing bacteria to form. Household bleach poured into each drain will help neutralize any bacteria that may be present. If problems persist, pipes can be taken apart and cleaned or replaced. As a last result, a plumbing professional can quickly diagnose and fix the problem.

Why is my water dark in color?

Water softeners or the media inside is a common cause of water discoloration. When these go bad water throughout your home can turn a multitude of unpleasant colors including yellow, red or even black. If this occurs, check your softener for a bypass line and isolate it from your plumbing until repairs can be made. Flush your house lines until water clears up.

Did You Know?

Routine Microbiological Contaminants are monitored throughout the system on a monthly basis along with disinfection monitoring to insure the proper level of chlorine is present in the drinking water. Over 3,500 individual samples were taken in 2008.

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.

Good to Know:

City code prohibits draining your pool or spa water in to city streets, alleyways, or right-of-way. High chlorine and other chemicals can enter storm drains and channels causing damage to the environment. Instead discharge the water into your sewer clean out.



Hard Water Facts

Magnesium and calcium are two minerals commonly found in Arizona soil, and when dissolved, cause what is known as hard water. These two minerals are the likely culprits of deposits in your sink and the spots on your dishes and faucets; white vinegar can also be used to clean calcium build-up from faucets, garden nozzles, and showerheads.

The good news is that hard water poses no health risks. It can, however, be bothersome to consumers. Calcium deposits can build up in pipes, water heaters, and dishwashers. This may reduce water flow or require replacement of pipes or appliances. So if you choose to install a water softener we won't be offended. They work by removing calcium and magnesium from the water and replacing it with sodium or potassium. There are many types of softeners available, so be sure to evaluate the performance capabilities of the product, as well as the reputation of the company.

IF OTHER PEOPLE, SUCH AS TENANTS, RESIDENTS, PATIENTS, STUDENTS, OR EMPLOYEES, RECEIVE WATER FROM YOU, IT IS IMPORTANT THAT YOU PROVIDE THIS NOTICE TO THEM BY POSTING IT IN A CONSPICUOUS LOCATION OR BY DIRECT HAND OR MAIL DELIVERY.

Get Involved

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 and fourth Thursday of each month at the Municipal Court located at 14010 North El Mirage Road.

“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”.



Contact Us.

For more information about this report, or for any questions relating to your drinking water, please contact Jaime McCullough, Regulatory Coordinator, at 623-876-4252 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 how to make wise water decisions - [visit www.wateruseitwisely.com](http://www.wateruseitwisely.com).



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