
## A Message from the Arizona American Water President, Paul Townsley

Arizona American Water is proud to be your local water company. For all of us, water is central to our lives. It's involved in everything we do, everything we use. That's why it's important that we share with you, our customer, information about the quality of the water we provide – a service we provide to you for about a penny a gallon.

I am proud to share with you the 2010 annual water quality report with detailed information about the source and quality of your drinking water. We have prepared this report using the most recent results from water quality testing conducted in your local water system through December 2010. You'll find that we supply water that surpasses or meets all federal and state water quality regulations.

Just as important, we place a strong focus on acting as stewards of our environment. In Arizona, we educate customers on how to protect our water source and use water wisely. You can learn more about these ideas and programs on our website, www.arizonaamwater.com

Arizona American Water is a wholly-owned subsidiary of American Water (NYSE:AWK) which celebrates its 125th anniversary this year; we're part of a long standing American tradition of quality service. American Water is the largest U.S. investor-owned water and wastewater utility in the country. You can celebrate this milestone with us, read useful information about wise water use, learn more about the history of water service delivery in America and pledge to help the planet at www.amwater125.com.

At Arizona American Water, our customers are our top priority, and we are committed to providing you with the highest quality drinking water and service possible now and in the years to come.

Please contact us at (888) 237-1333 if you have any questions or concerns about any aspect of your water service. We look forward to providing this critical resource to you throughout 2011.

Sincerely,

Paul Townsley

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. 1-888-237-1333.

## What is a Water Quality Report?

To comply with state and U.S. Environmental Protection Agency (EPA) regulations, Arizona American Water issues an annual water quality report which describes the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and your awareness of the need to protect your drinking water sources. This report includes details about where your water comes from and what it contains. This data presented in this report is a combination of data from our nationally recognized water quality lab and commercial laboratories all certified in drinking water testing by the State of Arizona Department of Health Services. If you have any questions about this report or your drinking water, please call our Arizona Customer Service Center at (888) 237-1333.

## What's Inside?

This report outlines the processes involved in delivering the highest quality drinking water available to you. In it, it will answer these important questions:

**Where does my water come from?**
**What is in my drinking water?**

We will also provide information on other available resources that will answer questions about water quality and health effects.

## Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not billed customers of Arizona American Water Company and therefore do not receive this report directly.

## Where Does My Water Come From?

All the water provided by Arizona American Water comes from groundwater pumped from the Lake Mohave Basin. The basin is a narrow strip of land bounded by the Colorado River in the west and the Black Mountains in the east. Groundwater is found in the alluvial sand, silt, and gravel deposits adjacent to the Colorado River and Lake Mohave.

## Notice of Source Water Assessment

In 2004 the Arizona Department of Environmental Quality completed a source water assessment for the six wells used by Arizona American Water Company-Bullhead City. The Assessment reviewed the adjacent land uses that may pose a potential risk to the sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture fields, waste water treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, they were ranked as to their potential to affect the water sources. The results of the assessment were that four wells had no adjacent land uses, and one well had 8 adjacent land uses that pose a high risk, and one well that had three adjacent land uses that pose a low risk.

The complete Assessment is available for inspection at the Arizona Department of Environmental Quality, 1110 W. Washington, Phoenix, Arizona 85007, between the hours of 8:00 a.m. and 5:00 p.m. Electronic copies are available from ADEQ at dml@azdeq.gov. For more information, call ADEQ's Source Water Assessment and Protection Unit at 602-771-4644 or visit their website www.azdeq.gov/environ/water/dw/swap.html.

**What we do to protect groundwater:**
We protect the sources by ensuring proper well construction and system operations and management.

**What you can do to protect groundwater:**
Residents can help by taking hazardous household chemicals hazardous material collection days, and limiting pesticide & fertilizer use. For information on household hazardous material collection days in your area, please contact ADEQ at (602) 771-4459.

## Protecting Our Water Supply

**Backflow Prevention**
Arizona American Water has a backflow prevention program that ensures proper installation and maintenance of thousands of backflow prevention devices throughout our system. These devices ensure hazards originating on customers' property and from temporary connections do not impair or alter the water in our water distribution system. Return of any water to our water distribution system after the water has been used for any purpose on the customer's premises or within the customer's piping system is unacceptable. Backflow prevention devices range from vacuum breakers on household hose bibs to large commercial reduced-pressure principal devices found throughout our system.

## Home Water Treatment Units

If you install a home treatment system such as a water softener or reverse osmosis system to improve taste or odor, remember to follow the manufacturer's instructions on operation and maintenance. Failure to perform maintenance can result in poor water quality. We recommend contacting the manufacturer of your treatment system for maintenance instructions or assistance. Additional information about home treatment systems is available from the Arizona Water Quality Association at 480-947-9850 or by writing to 6819 E. Diamond St., Scottsdale, AZ 85257.

## Guidelines for Everyday Pollution Prevention – "Only Rain In The Storm Drain"

- Use fertilizers and pesticides sparingly and as directed by the manufacturer.
- Pick up after your pet and do not dispose of any waste in washes, canals, or riverbeds.
- Only wash your car on a lawn or other unpaved surface, or use a commercial car wash.
- Always use a nozzle when using your garden hose around the home. Do not let the water free flow.
- Maintain vehicles, machinery, and equipment to be free of leaks.
- Sweep up dirt and debris, rather than using a hose.
- Do not over-water your lawn.
- Minimize your purchase and use of hazardous products. Dispose of unused quantities properly.

## How to Read This Table

Starting with a **Substance**, read across. **Year Sampled** is usually in 2010 or year prior. **MCLG** is the goal level for that substance (this may be lower than what is allowed). **MCL** shows the highest level of substance (contaminant) allowed. **Highest Amount Detected** represents the highest amount that was found. **Range of Detections** tells the highest and lowest amounts found. A **Yes** under **Compliance Achieved** means the amount of the substance is below government requirements. **Typical Source** tells where the substance usually originates.

## Definitions of Terms Used in This Report

**gpg or grains/gallon**: Used to describe the dissolved hardness minerals contained in water and is a unit of weight that equals 1/7000 of a pound.

**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.

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

**AL (Action Level)**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**ND**: None Detected

**NTU**: Nephelometric turbidity units

**pCi/L (Picocuries per liter)**: Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

**ppb – (Parts per billion)**: One part substance per billion parts water (or micrograms per liter).

**ppm – (Parts per million)**: One part substance per million parts water (or milligrams per liter).

**UCMR – (Unregulated Contaminant Monitoring Rule)**: Unregulated substances are measured, but maximum contaminant levels have not been established by the government.

**TTHM – Total Trihalomethanes**: Consist of Chloroform, Bromoform, Bromodichloromethane, and Dibromochloromethane.

**HAA5 – Haloacetic Acids**: Consist of Monochloroacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Bromoacetic acid, and Dibromoacetic Acid.

## Substances Expected to be in Drinking Water

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals and, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity.

**Substances 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, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses.

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also, come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791.

## Lead

Arizona American Water Company monitored the water for lead and copper in 2010 at 30 residences throughout the community and met the federal lead and copper standards. The 30 houses sampled were representative of the types of houses throughout the system. If you weren't part of the representative sampling and are concerned about elevated lead levels in your home's water, you may wish to flush your tap for 30 seconds to 2 minutes before using the water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

## Additional Monitoring

In addition to the parameters listed in the table above, Arizona American Water monitored for other parameters including regulated pesticides, herbicides, petroleum by-products and metals. None of those parameters were detected in the water. For a detailed list of all contaminants that we monitor for, please contact our Customer Service Center at 1-(888) 237-1333.

## Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers for Disease Control and Prevention) 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).

## ABOUT A PENNY

**Did you know that you pay about a penny for a gallon of tap water?**

We invest millions of dollars each year in our treatment and distribution facilities to ensure that you receive quality, reliable water service around the clock. At the same time, you pay about a penny per gallon. For most customers, the water bill is the lowest utility bill they pay each month.

**That's an exceptional value.**

**WE CARE ABOUT WATER. IT'S WHAT WE DO.**

## What's In My Water?

This data presented in this report is a combination of analysis results from our nationally recognized water quality lab and commercial laboratories, all certified in drinking water testing by the State of Arizona Department of Health Services. For your information, we have compiled a list in the table below showing what substances were detected in our drinking water during 2010 or the last sampling period. If you have any questions about this report or your drinking water, please call our Arizona Customer Service Center at (888) 237-1333.

## Water Quality Results

**Regulated Substances Measured on the Water Leaving the Treatment Facility**

| Substance (units) | Year Sampled | MCLG | MCL | Highest Amount Detected | Range of Detections | Compliance Achieved | Typical Source |
|---|---|---|---|---|---|---|---|
| Alpha Emitters (pCi/L) | 2009 | 0 | 15 | 12.2 | 3.1 - 12.2 | Yes | Erosion of natural deposits |
| Arsenic (ppb) [3] | 2009 | 0 | 10 | 7 | ND - 7 | Yes | Erosion of natural deposits |
| Barium (ppm) | 2009 | 2 | 2 | 0.068 | 0.036 - 0.068 | Yes | Discharge of drilling wastes; erosion of natural deposits |
| Combined Radium (pCi/L) | 2009 | 0 | 5 | 1.0 | ND - 1.0 | Yes | Erosion of natural deposits |
| Fluoride (ppm) | 2009 | 4.0 | 4.0 | 1.4 | 0.2 - 1.4 | Yes | Erosion of natural deposits |
| Mercury (ppb) | 2009 | 2 | 2 | 0.7 | ND - 0.7 | Yes | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland |
| Nitrate (ppm) [2] | 2010 | 10 | 10 | 5.45 | ND - 5.45 | Yes | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Selenium (ppm) | 2009 | 0.05 | 0.05 | 0.023 | ND - 0.023 | Yes | Erosion of natural deposits; discharge from mines |
| Tetrachloroethylene (PCE) (ppb) | 2010 | 0 | 5 | 0.8 | 0.6 - 0.8 | Yes | Discharge from factories and dry cleaners |

**Tap Water Samples: Lead and Copper Results**

| Substance (units) | Year Sampled | MCLG | Action Level | Number of Samples | 90th Percentile | Number of Samples Above Action Level | Typical Source |
|---|---|---|---|---|---|---|---|
| Lead (ppb) | 2010 | 0 | 15 | 30 | 5 | 0 | Corrosion of household plumbing systems; erosion of natural deposits |
| Copper (ppm) | 2010 | 1.3 | 1.3 | 30 | 0.246 | 0 | Corrosion of household plumbing systems; erosion of natural deposits |

**Regulated Substances Measured in the Distribution System**

| Substance (units) | Year Sampled | MCLG/MRDL | MCL/MRDL | Average Amount Detected | Range of Detections | Compliance Achieved | Typical Source |
|---|---|---|---|---|---|---|---|
| TTHMs [Total trihalomethanes] (ppb) | 2010 | NA [1] | 80 | 10.7 | 5.3 - 16 | Yes | By-product of drinking water disinfection |
| HAA5 (ppb) | 2010 | NA [1] | 60 | 1.8 | ND - 4.0 | Yes | By-product of drinking water disinfection |
| Chlorine Residual (ppm) | 2010 | 4 | 4.0 | 0.3 | 0.2 - 0.5 | Yes | Water additive to control microbes |

**Unregulated Substances Measured on the Water Leaving the Treatment Facility**

| Substance (units) | Year Sampled | Range Low High | Typical Source |
|---|---|---|---|
| Boron (ppm) | 2009 | 0.126 - 0.386 | Erosion of natural deposits |
| Calcium (ppm) | 2009 | 51 - 204 | Erosion of natural deposits |
| Iron (ppm) | 2009 | ND - 0.22 | Erosion of natural deposits |
| Magnesium (ppm) | 2009 | 10 - 52 | Erosion of natural deposits |
| Manganese (ppm) | 2009 | ND - 0.010 | Erosion of natural deposits |
| Molybdenum (ppm) | 2009 | 0.001 - 0.006 | Erosion of natural deposits |
| Nickel (ppm) | 2009 | 0.0015 - 0.0062 | Erosion of natural deposits |
| Potassium (ppm) | 2009 | ND - 9 | Erosion of natural deposits |
| Silica (ppm) | 2009 | 26 - 52 | Erosion of natural deposits |
| Sodium (ppm) | 2009 | 98 - 180 | Erosion of natural deposits |
| Strontium (ppm) | 2009 | 1.176 - 3.766 | Erosion of natural deposits |
| Total Hardness (grains/gal) | 2002 | 14 - 45 | Erosion of natural deposits |
| Sulfate (ppm) | 2009 | 101.6 - 430.6 | Erosion of natural deposits |
| Chloride (ppm) | 2009 | 86.7 - 382.5 | Erosion of natural deposits |
| Total Dissolved Solids (ppm) | 2005 | 460 - 1228 | Erosion of natural deposits |

Special Footnotes:
Year Sampled – The state requiris us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

[1] Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants: Trihalomethanes: bromodichloromethane (zero); bromoform (zero); chloroform (0.07mg/L); dibromochloromethane (0.06 mg/L). Haloacetic acids: dichloroacetic acid (zero); trichloroacetic acid (0.02mg/L). Monochloroacetic acid (0.07mg/L), bromoacetic acid, and dibromoacetic acid are regulated with this group but have no MCLGs.

[2] Nitrate in drinking water at levels above 10 ppm is a health risk for infants of 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, you should ask advice from your health care provider.

[3] Arsenic – While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost 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.