

# 2011 ANNUAL DRINKING WATER QUALITY REPORT FOR RIGBY WATER

**Public Water System Name: City of Avondale • Public Water System Number: AZ 04 07062**

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



This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

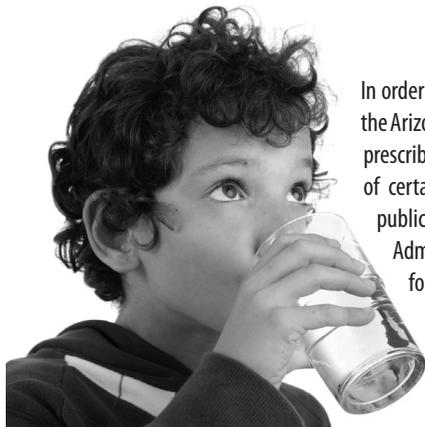
*This report is for the period of January 1 to December 31, 2011. The city of Avondale acquired the Rigby Water system in September 2011.*

## GENERAL INFORMATION ABOUT DRINKING 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 that the water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or 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 microbiological contaminants call the EPA Safe Drinking Water Hotline at 1-800-426-4791.

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:

- ◆ **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- ◆ **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- ◆ **Pesticides and herbicides** that 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 byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.
- ◆ **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.



In order to ensure that tap water is safe to drink, the Arizona Department of Environmental Quality prescribes regulations limiting 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 that must provide the same protection for public health.

## OUR WATER SOURCE(S)

Rigby Water drinking water source is Ground Water from the West Salt River Valley Sub Basin.

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.

Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination occurred. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Potential sources of contamination in our source water area come from: **surface water intrusion to unprotected wells.**

## TERMS AND ABBREVIATIONS

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

- ◆ **Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- ◆ **Action Level Goal (ALG)** - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. The ALG allows for a margin of safety.
- ◆ **Maximum Contaminant Level (MCL)** - The "Maximum Allowed" is 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.
- ◆ **Maximum Contaminant Level Goal (MCLG)** - The "Goal" is 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 Disinfectant Level (MRDL)** - 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.
- ◆ **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.
- ◆ **Parts per billion (ppb) or Micrograms per liter (µg/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- ◆ **Parts per million (ppm) or Milligrams per liter (mg/L)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- ◆ **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- ◆ **Running Annual Average (RAA)** - An average of monitoring results for the previous 12 calendar months.

## WATER QUALITY DATA

We routinely monitor for contaminants in your drinking water according to Federal and State laws. Some of our data, though representative, may be more than one year old.

*These tables show the results of our monitoring for the period of January 1 to December 31, 2011 unless otherwise noted.*

### MICROBIOLOGICAL CONTAMINANTS

Contaminant	MCL	No. of Samples taken in 2011	MCLG	Unit	Result	Violation	Likely Source of Contamination
Total Coliform Bacteria for Systems that collects > 40 samples per month	No more than 5% of monthly samples can be positive	12	0	Absent or Present	0	No	Naturally present in the environment

### RADIONUCLIDES

Contaminant	MCL	MCLG	Units	Low Range	Average Detected	Violation	Sample Date/Year	Likely Source of Contamination
Gross Alpha emitters excluding radon and uranium	15	0	pCi/L	9.6 – 9.6	9.6	No	10/14/2009	Erosion of natural deposits

*(continued on page 2)*



WATER QUALITY DATA (continued from page 1)

**LEAD AND COPPER**

Contaminant	AL	ALG	Units	90th Percentile	Number of Sites over AL	Violation	Sample Date/Year	Likely Source of Contamination
Copper	1.3	1.3	ppm	0.31	0	No	06/01/2010	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	15	0	ppb	19	2	No	06/01/2010	Corrosion of household plumbing systems, erosion of natural deposits

**Definitions:**

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. 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. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

**INORGANIC CONTAMINANTS**

Contaminant	MCL	MCLG	Units	Range of Levels Detected	Average Detected	Violation	Sample Date/Year	Likely Source of Contamination
Arsenic	10	0	ppb	6 – 6	6	No	2011	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes

**Health Effects:** Arsenic – While your drinking water meets EPA standards for arsenic, 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.

Barium	2	2	ppm	0.13 – 0.13	0.13	No	01/06/2010	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide	200	200	ppb	35 – 35	35	No	01/06/2010	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	4	4	ppm	0.43 – 0.43	0.43	No	01/06/2010	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	10	10	ppm	3.9 – 8.2	8	No	2011	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

**Health Effects:** 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, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

Selenium	50	50	ppb	4.2 – 4.2	4.2	No	01/06/2010	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
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**VIOLATIONS TABLE – ARSENIC**

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine Major	07/01/2011	09/30/2011	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
Monitoring, Routine Major	10/01/2011	12/31/2011	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

**Health Effects:** If arsenic is less than the MCL, your drinking water meets EPA's standards. 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.

Please contact **Crystal Orth (623) 333-4457** for more information about the annual drinking water quality report and what you can do to help protect your drinking water sources. Council meetings are held every first and third Monday of the month. Public meeting notices are posted on the City's web site at [www.avondale.org](http://www.avondale.org) and outside of the Avondale City Hall building, located at 11465 W. Civic Center Drive, Avondale.

**TO LEARN MORE ABOUT WATER**

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**United States Environmental Protection Agency**  
 (Safe Drinking Water Hotline: (800) 426-4791  
[www.epa.gov/safewater](http://www.epa.gov/safewater)
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**Arizona Department of Environmental Quality**  
 (602) 771-2300  
[www.adeq.state.az.us/environ/water/index.html](http://www.adeq.state.az.us/environ/water/index.html)
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**Maricopa County Environmental Services Department**  
 (602) 506-6666  
[www.maricopa.gov/ENVSVC/](http://www.maricopa.gov/ENVSVC/)


**WaterSense**  
[www.epa.gov/watersense](http://www.epa.gov/watersense)




**Tap into Quality**  
[www.tapintoquality.com](http://www.tapintoquality.com)




**Arizona Municipal Water Users Association (AMWUA)**  
[www.amwua.org](http://www.amwua.org)



For after-hours emergencies regarding water quality, water main breaks, please contact the Avondale Public Works Department dispatch at (623) 333-4400.

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