

# Rose Valley Water Annual Water Quality Report 2015

## Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúscalo o hable con alguien que lo entienda bien.

### Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Local Water vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

### Do I need to take special precautions?

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 from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

### Where does my water come from? \* (See additional appendix on pages 5-6)

Our water source is from groundwater from the aquifer over 600 feet below ground and is pumped up to our storage tanks and distribution system by our two wells which are active at this time and are located in our service area.

### Source water assessment and its availability

The Source Water Assessment Program (SWAP) is completed by the Arizona Department of Environmental Quality (ADEQ). The SWAP evaluates each source water that provides drinking water to each Public Water System (PWS) in Arizona. This evaluation determines the degree to which a PWS is protected, or at risk from contamination. Water sources are then categorized as either "high risk" or "low risk". Rose Valley's SWAP states the following: "Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water sources(s) of this public water system, the department has given a low risk designation for the degree to which this public water system drinking water sources(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection."

For more information please contact ADEQ toll free at 1-800-234-5677 extension 4425 or (602) 771-4644.

### Why are there contaminants in my drinking 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 and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (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: 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 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, and residential uses; organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and radioactive contaminants, which 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### How can I get involved or for more information?

Please contact Gary Brasher - President at 1-623-889-2275 or [info@rosevalleywaterco.com](mailto:info@rosevalleywaterco.com).

### Additional Information for 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 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.

### Additional Information for Lead

Infants and young children are typically more vulnerable to lead in drinking water than the general populations. 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 and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from Safe Drinking Water Hotline (800-426-4791). Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

## Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

| <u>Contaminants</u>  | <u>MCLG<br/>or<br/>MRDLG</u> | <u>MCL,<br/>TT, or<br/>MRDL</u> | <u>Your<br/>Water</u> | <u>Range<br/>Low High</u> | <u>Sample<br/>Date</u> | <u>Violation</u> | <u>Typical Source</u>   |
|--|------------------------------|---------------------------------|-----------------------|---------------------------|------------------------|------------------|---|
| <b>Disinfectants &amp; Disinfection By-Products</b>  |                              |                                 |                       |                           |                        |                  |   |
| (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.) |                              |                                 |                       |                           |                        |                  |   |
| Chlorine (as Cl <sub>2</sub> ) (ppm)   | 4                            | 4                               | 1.29                  | NA                        | 2015                   | No               | Water additive used to control microbes   |
| Haloacetic Acids (HAA5) (ppb)  | NA                           | 60                              | <2.00                 | NA                        | 2014                   | No               | By-product of drinking water chlorination   |
| TTHMs [Total Trihalomethanes] (ppb)  | NA                           | 80                              | 2.00                  | NA                        | 2014                   | No               | By-product of drinking water disinfection   |
| <b>Inorganic Contaminants</b>  |                              |                                 |                       |                           |                        |                  |   |
| Antimony   | .006                         | .003                            | <0.001                | NA                        | 2013                   | No               | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.                                 |
| Arsenic (ppb)  | 0                            | 10                              | 4.30                  | NA                        | 2013                   | No               | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes                              |
| Asbestos (MFL)   | 7                            | 7                               | <0.2                  | NA                        | 2013                   | No               | Decay of asbestos cement water mains; Erosion of natural deposits   |
| Barium (ppm)   | 2                            | 2                               | 0.030                 | NA                        | 2013                   | No               | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits  |
| Beryllium  | .004                         | .004                            | <0.001                | NA                        | 2013                   | No               | Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries            |
| Cadmium  | .005                         | .005                            | <0.0005               | NA                        | 2013                   | No               | Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints |
| Chromium   | .1                           | .1                              | <0.0017               | NA                        | 2013                   | No               | Discharge from steel and pulp mills; Erosion of natural deposits  |
| Cyanide [as Free Cn]   | .2                           | .2                              | <0.025                | NA                        | 2013                   | No               | Discharge from plastic and fertilizer factories; Discharge from steel/metal factories   |
| Fluoride (ppm)   | 4                            | 2                               | <0.15                 | NA                        | 2013                   | No               | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories           |

|  |      |      |         |    |      |    |   |
|--|------|------|---------|----|------|----|---|
| Mercury [Inorganic]  | .002 | .002 | <0.0002 | NA | 2013 | No | Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland |
| Nitrate [measured as Nitrogen] (ppm)   | 10   | 5    | 1.50    | NA | 2015 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                       |
| Nitrite [measured as Nitrogen] (ppm)   | 1    | .5   | <0.05   | NA | 2013 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                       |
| Selenium   | .05  | .05  | <0.005  | NA | 2013 | No | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines                  |
| Sodium (optional) (ppm)  |      | MPL  | 34      | NA | 2013 | No | Erosion of natural deposits; Leaching   |
| Thallium   | .002 | .002 | <0.001  | NA | 2013 | No | Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories                         |
| <b>Microbiological Contaminants</b>  |      |      |         |    |      |    |   |
| Fecal coliform/E. coli (positive samples)  | 0    | 0    | 0       | NA | 2015 | No | Human and animal fecal waste  |
| A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive. |      |      |         |    |      |    |   |
| Total Coliform (positive samples/month)  | 0    | 0    | 0       | NA | 2015 | No | Naturally present in the environment  |
| <b>Radioactive Contaminants</b>  |      |      |         |    |      |    |   |
| Alpha emitters (pCi/L)   | 0    | 15   | <2.9    | NA | 2010 | No | Erosion of natural deposits   |
| Radium (combined 226/228) (pCi/L)  | 0    | 5    | <0.4    | NA | 2010 | No | Erosion of natural deposits   |
| <b>Volatile Organic Contaminants</b>   |      |      |         |    |      |    |   |
| 1,1,1-Trichloroethane (ppb)  | 200  | 200  | <0.5    | NA | 2010 | No | Discharge from metal degreasing sites and other factories   |
| 1,1,2-Trichloroethane (ppb)  | 3    | 5    | <0.5    | NA | 2010 | No | Discharge from industrial chemical factories  |
| 1,1-Dichloroethylene (ppb)   | 7    | 7    | <0.5    | NA | 2010 | No | Discharge from industrial chemical factories  |
| 1,2,4-Trichlorobenzene (ppb)   | 70   | 70   | <0.5    | NA | 2010 | No | Discharge from textile-finishing factories  |
| 1,2-Dichloroethane (ppb)   | 0    | 5    | <0.5    | NA | 2010 | No | Discharge from industrial chemical factories  |
| 1,2-Dichloropropane (ppb)  | 0    | 5    | <0.5    | NA | 2010 | No | Discharge from industrial chemical factories  |
| Benzene (ppb)  | 0    | 5    | <0.5    | NA | 2010 | No | Discharge from factories; Leaching from gas storage tanks and landfills   |
| Carbon Tetrachloride (ppb)   | 0    | 5    | <0.5    | NA | 2010 | No | Discharge from chemical plants and other industrial activities  |
| Chlorobenzene (monochlorobenzene) (ppb)  | 100  | 100  | <0.5    | NA | 2010 | No | Discharge from chemical and agricultural chemical factories   |
| cis-1,2-Dichloroethylene (ppb)   | 70   | 70   | <0.5    | NA | 2010 | No | Discharge from industrial chemical factories  |
| Dichloromethane (ppb)  | 0    | 5    | <0.5    | NA | 2010 | No | Discharge from pharmaceutical and chemical factories  |
| Ethylbenzene (ppb)   | 700  | 700  | <0.5    | NA | 2010 | No | Discharge from petroleum refineries   |
| o-Dichlorobenzene (ppb)  | 600  | 600  | <0.5    | NA | 2010 | No | Discharge from industrial chemical factories  |
| p-Dichlorobenzene (ppb)  | 75   | 75   | <0.5    | NA | 2010 | No | Discharge from industrial chemical factories  |

|                                  |     |     |         |    |      |    |   |
|----------------------------------|-----|-----|---------|----|------|----|---|
| Styrene (ppb)                    | 100 | 100 | <0.5    | NA | 2010 | No | Discharge from rubber and plastic factories; Leaching from landfills  |
| Tetrachloroethylene (ppb)        | 0   | 5   | <0.5    | NA | 2010 | No | Discharge from factories and dry cleaners                             |
| Toluene (ppm)                    | 1   | 1   | <0.0005 | NA | 2010 | No | Discharge from petroleum factories                                    |
| trans-1,2-Dichloroethylene (ppb) | 100 | 100 | <0.5    | NA | 2010 | No | Discharge from industrial chemical factories                          |
| Trichloroethylene (ppb)          | 0   | 5   | <0.5    | NA | 2010 | No | Discharge from metal degreasing sites and other factories             |
| Vinyl Chloride (ppb)             | 0   | 2   | <0.3    | NA | 2010 | No | Leaching from PVC piping; Discharge from plastics factories           |
| Xylenes (ppm)                    | 10  | 10  | <0.0010 | NA | 2010 | No | Discharge from petroleum factories; Discharge from chemical factories |

| <u>Contaminants</u>                          | <u>MCLG</u> | <u>AL</u> | <u>Your Water</u> | <u>Sample Date</u> | <u># Samples Exceeding AL</u> | <u>Exceeds AL</u> | <u>Typical Source</u>  |
|--|-------------|-----------|-------------------|--------------------|-------------------------------|-------------------|--|
| <b>Inorganic Contaminants</b>                |             |           |                   |                    |                               |                   |  |
| Copper - action level at consumer taps (ppm) | 1.3         | 1.3       | 0.22              | 2014               | 0                             | No                | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead - action level at consumer taps (ppb)   | 0           | 15        | 1.30              | 2014               | 1                             | No                | Corrosion of household plumbing systems; Erosion of natural deposits |

| <b>Unit Descriptions</b> |  |
|--------------------------|--|
| <u>Term</u>              | <u>Definition</u>  |
| ppm                      | ppm: parts per million, or milligrams per liter (mg/L)                                 |
| ppb                      | ppb: parts per billion, or micrograms per liter (µg/L)                                 |
| ppt                      | ppt: parts per trillion, or nanograms per liter  |
| ppq                      | ppq: parts per quadrillion, or picograms per liter                                     |
| pCi/L                    | pCi/L: picocuries per liter (a measure of radioactivity)                               |
| MFL                      | MFL: million fibers per liter, used to measure asbestos concentration                  |
| positive samples/month   | positive samples/month: Number of samples taken monthly that were found to be positive |
| positive samples         | positive samples/yr: The number of positive samples taken that year                    |
| NA                       | NA: not applicable   |
| ND                       | ND: Not detected   |
| NR                       | NR: Monitoring not required, but recommended.  |

| <b>Important Drinking Water Definitions</b> |   |
|---|---|
| <u>Term</u>                                 | <u>Definition</u>   |
| MCLG  | 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.  |
| MCL   | 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.   |
| TT  | TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.  |
| AL  | AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.   |
| Variances and Exemptions                    | Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.   |
| MRDLG                                       | MRDLG: Maximum residual disinfection 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. |
| MRDL  | 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.                              |
| MNR   | MNR: Monitored Not Regulated  |
| MPL   | MPL: State Assigned Maximum Permissible Level   |

**\*Consecutive Connection Sources:**

A public water system that receives some or all of its finished water from one or more wholesale systems by means of a direct connection or through the distribution system of one or more consecutive systems. Systems that purchase water from another system report regulated contaminants detected from the source water supply in a separate table.

**In 2015, PWS ID # AZ04 -07-096, City of Peoria, provided a consecutive connection source of water. The City of Peoria's 2015 regulated contaminants detected from the source water are shown in a separate table in the following appendix.**

**Peoria Water System #04-07-096  
2015 Detect Table**

| Analyte                        | Units    | Peoria Water System |         | EPA Limit<br>MCL        | EPA<br>Limit<br>MCLG | Source   |
|--------------------------------|----------|---------------------|---------|-------------------------|----------------------|--|
|                                |          | Range               | Average |                         |                      |  |
| Alkalinity                     | mg/L     | 112 - 194           | 139     | N/A                     | N/A                  | Naturally present.   |
| Arsenic                        | µg/L     | 2.4 - 8.5           | 5.1     | 10                      | 0                    | Erosion of natural deposits; Runoff from orchards  |
| Barium                         | mg/L     | 0.01 - 0.08         | 0.04    | 2                       | 2                    | Erosion of natural deposits.   |
| Bromate*                       | µg/L     | ND - 7.0            | 3.6     | 10                      | 0                    | By-product of drinking water ozonation.  |
| Calcium                        | mg/L     | 32***               | 32***   | N/A                     | N/A                  | Erosion of natural deposits.   |
| Chromium                       | µg/L     | ND - 22             | 8.7     | 100                     | 100                  | Discharge from steel and pulp mills; Erosion of natural deposits                                 |
| Dibromochloropropane           | ng/L     | ND - 40             | 6.7     | 200                     | 0                    | Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards            |
| Fluoride                       | mg/L     | 0.14 - 0.62         | 0.29    | 4                       | N/A                  | Erosion of natural deposits  |
| Gross Alpha                    | pCi/L    | 1.7 - 2.7           | 2.1     | 15                      | 0                    | Erosion of natural deposits.   |
| Hardness                       | Gr/gal   | 7.9***              | 7.9***  | N/A                     | N/A                  | Naturally present.   |
| Magnesium                      | mg/L     | 13***               | 13***   | N/A                     | N/A                  | Erosion of natural deposits.   |
| Nitrate                        | mg/L     | 0.63 - 8.12         | 3.47    | 10                      | 10                   | Fertilizer runoff, erosion of natural deposits.  |
| pH                             | pH Units | 6.1 - 7.7           | 7.4     | N/A                     | N/A                  | NA   |
| Selenium                       | µg/L     | ND - 6.4            | 3.7     | 50                      | 50                   | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines |
| Sodium                         | mg/L     | 33 - 186            | 62      | N/A                     | N/A                  | Naturally present.   |
| Sulfate                        | mg/L     | 28***               | 28***   | N/A                     | 250                  | Naturally present.   |
| Total Dissolved Solids         | mg/L     | 292***              | 292***  | N/A                     | N/A                  | Naturally present.   |
| Total Organic Carbon % Removal | %        | 0 - 55.8%           | 35.5%   | TT                      | N/A                  | Naturally present in the environment.  |
| Total Haloacetic Acids *       | µg/L     | ND - 31             | 15*     | 60*                     | N/A                  | By-product of drinking water chlorination.   |
| Total Trihalomethanes *        | µg/L     | 1.4 - 84            | 40*     | 80*                     | N/A                  | By-product of drinking water chlorination.   |
| Uranium                        | µg/L     | 3.3***              | 3.3***  | 30                      | 0                    | Erosion of natural deposits.   |
| Xylenes                        | µg/L     | ND - 3              | 0.575   | 10                      | 10                   | Discharge from petroleum factories; Discharge from chemical factories                            |
| Turbidity                      | NTU      | 0.095               | N/A     | TT=1 NTU                | 0                    | Soil Runoff  |
|                                |          | 100.0%              | N/A     | TT=%of samples <0.3 NTU | 0                    | Soil Runoff  |

| Analyte                            | Units | Peoria Water System |         | EPA Limit MCL             | EPA Limit MCLG | Source                                   |
|------------------------------------|-------|---------------------|---------|---------------------------|----------------|--|
|                                    |       | Range               | Average |                           |                |  |
| Total Coliforms                    | P/A   | 0.12%               | N/A     | 5% of monthly samples are | 0              | Naturally present.                       |
| Fecal coliform or E. coli bacteria | P/A   | 0.00%               | N/A     |                           | 0              | Human or animal fecal waste              |
| Chlorine Residual                  | mg/L  | 0.14 - 2.29         | 0.94    | 4                         | 4              | Water additive used to control microbes. |

| Analyte | Units | 90th Percentile | Number of sites above | EPA Action | EPA Limit | Possible Sources   |
|---------|-------|-----------------|-----------------------|------------|-----------|--|
| Copper  | mg/L  | 0.33 (2013)     | One                   | 1.3        | 1.3       | Erosion of natural deposits, corrosion of home plumbing systems. |
| Lead    | µg/L  | 1.6 (2013)      | None                  | 15         | 0         | Erosion of natural deposits, corrosion of home plumbing systems. |

\* MCL is based on a running annual average. The average given is the highest average.

\*\*If a system collecting fewer than 40 samples per month has two or more positive samples in one month, the system has a MCL violation.

\*\*\* Only one sample collected.

~ Not Required

### Unregulated Contaminant Assessment Monitoring

| Analyte               | Units | Peoria Water System |         |      |
|-----------------------|-------|---------------------|---------|------|
|                       |       | Range               | Average | MRL  |
| 1,4-Dioxane           | ng/L  | ND - 84             | 5       | 0.07 |
| Bromochloromethane    | ng/L  | ND - 340            | 40      | 0.06 |
| Chlorodifluoromethane | ng/L  | ND - 330            | 21      | 0.08 |
| Chromium              | ug/L  | ND - 20             | 3       | 0.2  |
| Chromium-6            | ug/L  | 0.039 - 21          | 3.06    | 0.03 |
| Molybdenum            | ug/L  | ND - 4.7            | 2.2     | 1    |
| Strontium             | ug/L  | 420 - 1100          | 728     | 0.3  |
| Vanadium              | ug/L  | ND - 22             | 7.6     | 0.2  |