

# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019



***Presented By***  
**Pueblo del Sol**

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

PWS ID#: 02-044

## Our Mission Continues

We are once again pleased to present our annual water quality report covering January 1 through and December 31, 2019.

Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education, while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

## Important 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. The U.S. 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 at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## Substances That Could Be in Water

To ensure that tap water is safe to drink, Arizona Department of Environmental Quality 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. 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 dissolves naturally occurring minerals, in some cases, radioactive material; and 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, 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 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 may also come from gas stations, urban storm-water runoff, and septic systems;

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

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 at (800) 426-4791 or visit online at [www.epa.gov/safewater/hotline](http://www.epa.gov/safewater/hotline). Information on bottled water can be obtained from the U.S. Food and Drug Administration.

## Where Does My Water Come From?

Pueblo del Sol Water Company relies on groundwater pumped by four wells from the Sierra Vista Sub-Basin of the Upper San Pedro Basin. The Upper San Pedro Basin is an intermountain valley approximately 1,875 square miles in size bounded on the west by the Huachuca, Whetstone, and Rincon mountains and on the east by the Mule, Dragoon, Little Dragoon, and Winchester mountains. The basin extends approximately 58 miles from the international boundary with the Republic of Mexico on the south, to the Narrows, approximately 11 miles north of Benson. The four wells are located as follows: Well #2 is located on Yaqui Street, Well #3 is located on Highway 92 and Buffalo Solider Trail, Well #4 is located on Buffalo Solider Trail approximately one-half mile east of Highway 92, and Well #5 is located on St. Andrews Drive. We also utilize two reservoirs. Reservoir #1 is located on Shawnee Drive and Reservoir #2 is on Cherokee and Kachina.

We remain vigilant in delivering the best-quality drinking water

## Lead in Home Plumbing

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, toothbrush holders, and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*.

*Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including man). The bacteria can be introduced into the house through any of the above mentioned sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to continually clean and dry the involved surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help to eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence.

*Serratia* will not survive in chlorinated drinking water.



## Level 1 Assessment Update

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct one Level 1 assessment, which was completed. In addition, we resampled upstream, downstream, and at the original site that triggered the assessment. All samples were negative for bacteria. No further actions were required by the Department of Environmental Quality.

## Tap versus Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent according to government estimates).

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the

FDA completely exempts bottled water that is packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do

for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you would pay for bottled water.

For a detailed discussion on the NRDC study results, check out their website at <https://goo.gl/Jxb6xG>.

## Source Water Assessment

In 2003, the Arizona Department of Environmental Quality (ADEQ) completed a Source Water Assessment and had identified the susceptibility as high risk. Based on the information currently available on the hydrogeologic settings and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, ADEQ has given a high-risk designation for the degree to which this public water system drinking water source(s) are protected. A designation of high risk indicates there may be additional source water protection measures that can be implemented on the local level. This does not imply that the source water is contaminated, nor does it mean that contamination is imminent. Rather, it simply states that "land use activities or hydrogeologic conditions exist that make the source water susceptible to possible future contamination."

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Ann Zilinski or Mike Hennen at (520) 458-3742.





## BY THE NUMBERS

The number of Olympic-sized swimming pools it would take to fill up all of Earth's water.

**800**  
TRILLION

**1**  
CENT

The average cost for about 5 gallons of water supplied to a home in the U.S.

The amount of Earth's water that is salty or otherwise undrinkable, or locked away and unavailable in ice caps and glaciers.

**99%**

**50**  
GALLONS

The average daily number of gallons of total home water use for each person in the U.S.

The amount of Earth's surface that's covered by water.

**71%**

**330**  
MILLION

The amount of water on Earth in cubic miles.

The amount of Earth's water that is available for all of humanity's needs.

**1%**

**75%**

The amount of the human brain that contains water.



## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. And, the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The State recommends monitoring 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.

In 2019, Pueblo Del Sol Water failed to sample for lead and copper during the compliance period of June and September. In order to meet Lead and Copper Control Requirement, sampling will be conducted between June and September of 2020.

We participated in the 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2019	2	2	0.057	0.047–0.064	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (ppm)	2019	10	10	0.53	0.39–0.81	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

### Tap Water Samples Collected for Copper and Lead Analyses from Sample Sites throughout the Community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2016	1.3	1.3	0.17	0/35	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2016	15	0	1.5	0/35	No	Corrosion of household plumbing systems; Erosion of natural deposits

### UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2019	8.8	7.3–11.0	Naturally occurring

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**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.

**NA:** Not applicable.

**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).