

YOUR 2014 WATER QUALITY REPORT



**TIERRA DEL RIO
DISTRICT**

epcor.com

EPCOR WATER

Safety. Quality. Community. You'll hear these words spoken often around EPCOR.

For EPCOR, being your water and wastewater utility is more than providing a service. We take great pride in being your neighborhood utility, and the quality of life and the quality of the water is important to us at a personal level.

Providing high-quality, safe, reliable water—and protecting it for future generations—is an important part of what we do every day. That's a responsibility we don't take for granted, and that's why you're receiving this report.

Each year we send you a summary of the results obtained from testing your water in state-certified drinking water analysis labs. And we tell you what that analysis means.

In 2014, the water that EPCOR Water provided to you surpassed or met all federal and state primary drinking water quality regulations. We're proud of this record, and we're dedicated to upholding these results.

If you have questions about this report, our Customer Care team is here to help 24 hours a day, seven days a week. You can call us at 1-800-383-0834 or email us at mywater@epcor.com.

Thank you for caring about your water and for helping us to protect and manage the water we deliver to you. We invite you to learn more about your community's water and being water wise at epcor.com.

Sincerely,



Joe Gysel

President, EPCOR Water (USA) Inc.

ABOUT THIS REPORT

YOU WANT TO KNOW WHAT'S IN THE WATER YOU'RE DRINKING

As your water service provider, we're committed to ensuring the quality and safety of that water. That's why you are receiving this annual water quality report from us. We hope it will help you understand your community's water a little better and what we're doing to protect it.

WHAT WILL I FIND IN THIS REPORT?

This report complies with state and U.S. Environmental Protection Agency (EPA) drinking water regulations.

In it you'll find information on:

- **Where your water comes from**
- **Protecting your water**
- **What's in your water**

The information in this report is compiled from data from labs certified in drinking water analysis.

READ THIS REPORT – AND SHARE IT!

Reading this report and understanding your community's water is the first step. But it's also important to share this information with those who might not receive it directly. If you're a landlord, business, school or hospital, please share this report with water users in your community.

QUESTIONS?

EPCOR Water Customer Care:
1-800-383-0834 / mywater@epcor.com

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

1-800-383-0834 / mywater@epcor.com.



ABOUT YOUR WATER

TIERRA DEL RIO DISTRICT

ABOUT YOUR DISTRICT

- EPCOR provides water service to approximately 600 customers in Tierra Del Rio as part of the Sun City district.

WHERE YOUR WATER COMES FROM

- Groundwater pumped from the West Salt River Valley (WSRV) Sub-Basin

GROUNDWATER WELLS – AND PROTECTING THEM TOGETHER

- It's a broad, gently sloping alluvial plain with the following boundaries:
 - **North:** Hieroglyphic Mountains and Hedgpeth Hills
 - **South:** South Mountains, Estrella Mountains and Buckeye Hills
 - **West:** White Tank Mountains
 - **East:** Union Hills, Phoenix Mountains and Papago Buttes
- Depth to groundwater in the WSRV Sub-Basin varies from 150 to over 500 feet
- In the Tierra Del Rio area, groundwater is typically found between 300 and 400 feet below the surface
- Sources of groundwater include: Natural recharge from flood flows in streams and along mountain fronts and incidental recharge from agricultural and urban irrigation, canals, effluent and artificial lakes

How we protect your groundwater

We protect water sources by ensuring proper well construction and system operations and management.

How you can help

Properly dispose of hazardous household chemicals on hazardous material collection days and limit your pesticide and fertilizer use. For information on household hazardous material collection days in your area, contact the **Arizona Department of Environmental Quality** at 602-771-2300 or Earth911.org.

NOTICE OF SOURCE WATER ASSESSMENT

In 2004, the Arizona Department of Environmental Quality (ADEQ) completed a source water assessment for 18 of the 20 wells used by EPCOR-Sun 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, wastewater 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 five wells had no adjacent land uses. Six wells had one adjacent land use that posed a low risk. Four wells had two adjacent land uses that posed a low risk. Two wells had two adjacent land uses that posed a low risk along with one adjacent land use that posed a high risk. Lastly, one well had one adjacent land use that posed a high risk.

The complete assessment is available for inspection at the Arizona Department of Environmental Quality, 1110 W. Washington, Phoenix, AZ 85007, between the hours of 8 a.m. and 5 p.m. Electronic copies are available from **ADEQ** at dml@azdeq.gov. For more information please contact **ADEQ** at 602-771-4560 or visit www.azdeq.gov/environ/water/dw/swap.html.

GETTING INVOLVED

Consulting with the community is important to us. If you have a question, concern or suggestion about your local water system, please contact our **Customer Care** team at 1-800-383-0834.

WHAT YOU CAN EXPECT TO FIND IN YOUR WATER

SOURCES OF DRINKING WATER

The sources of drinking water—both tap water and bottled water—include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over land surfaces or through the ground, it can acquire naturally occurring minerals. In some cases it can also acquire radioactive material and substances resulting from the presence of animals or from human activity.

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.

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.



ENSURING YOUR WATER IS SAFE

To ensure that tap water is safe to drink, the EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. To ensure bottled water is safe to drink, U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water.

SUBSTANCES THAT MAY BE PRESENT IN SOURCE WATER

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.

WHAT YOU CAN EXPECT TO FIND IN YOUR WATER

SPECIAL HEALTH INFORMATION

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 may be particularly at risk from infections.

These people should seek advice about drinking water from their healthcare 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 **EPA's Safe Drinking Water Hotline** at **1-800-426-4791**.

Lead

EPCOR monitored the water for lead and copper in 2012 at 10 residences throughout the community and met the federal lead and copper standards. The 10 houses sampled were representative of the types of houses throughout the system. If your house was sampled you would have received the analytical results. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. EPCOR is responsible for providing high-quality drinking water, but 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. If you are concerned about lead in your 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** or at www.epa.gov/safewater/lead.



HOME WATER TREATMENT UNITS

Failure to perform maintenance on your home water treatment unit can result in poor water quality. If you installed a home water treatment system such as a water softener or reverse osmosis system, please remember to follow the manufacturer's instructions on operation and maintenance. For more information, contact the manufacturer of your treatment system for maintenance instructions or assistance. Additional information about home water 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.

DID YOU KNOW?

- Only 1% of the water on Earth is available for human use. Nearly 97% is salty or undrinkable and 2% is locked in ice caps and glaciers.
- EPA.GOV
- Turning off the tap while you brush your teeth can save up to 4 gallons of water each time you brush your teeth.
- EPA.GOV

FREQUENTLY ASKED QUESTIONS

WHAT IS THE WHITE OR COLORED DEPOSIT ON MY DISHES OR FAUCETS?

In most cases, the deposits or sediments left behind after water evaporates are calcium carbonate. The amount of calcium in the water is referred to as hardness. Cleaning with white vinegar can help to dissolve and remove deposits. Using a commercial conditioner, liquid detergents or the “air-dry” option in dishwashers can help to decrease the calcium carbonate found on dishes.

ARE THE DEPOSITS OR HARD WATER HARMFUL?

Hardness and/or the deposits left by hard water don't pose a health concern and can be beneficial to our customers' health. We don't treat drinking water for water hardness that can result in hard water deposits.

WHAT IS THE LEVEL OF HARDNESS IN MY WATER?

The hardness in your water is approximately 19.6 grains per gallon (gpg).

The degrees of water hardness are as follows:

Degree of water hardness range (gpg)

Soft	Less than 1
Slightly Hard	1.0 to 3.4
Moderately Hard	3.5 to 6.9
Hard	7.0 to 10.4
Very Hard	Greater than 10.5

WHY IS CHLORINE ADDED TO MY DRINKING WATER?

Chlorine is added to your water for your protection and is used as a disinfectant to ensure that harmful organisms, such as bacteria and viruses, are destroyed in the treatment process.

ARE THERE OTHER WAYS TO REMOVE THE CHLORINE TASTE OR SMELL FROM MY WATER?

To remove the taste of chlorine from your water, try these tips:

- Place water in a glass container in the refrigerator overnight, uncovered. This will let the chlorine dissipate
- Bring your water to a rolling boil for five minutes and let it stand to cool
- Add a slice of lemon or a few drops of lemon juice to your glass of drinking water



WILL MY HOME TREATMENT DEVICE REMOVE CHLORINE?

Some home treatment devices can remove chlorine. Once chlorine is removed, the water should be treated like any other beverage product and used as quickly as possible. We recommend that you follow the manufacturer's instructions for maintaining the device to ensure water quality.

DEFINITION OF TERMS

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

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

ppt (Parts per Trillion): One part substance per trillion parts water (or nanograms 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.

SMCL (Secondary Maximum Contaminant Level): Non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects in drinking water.

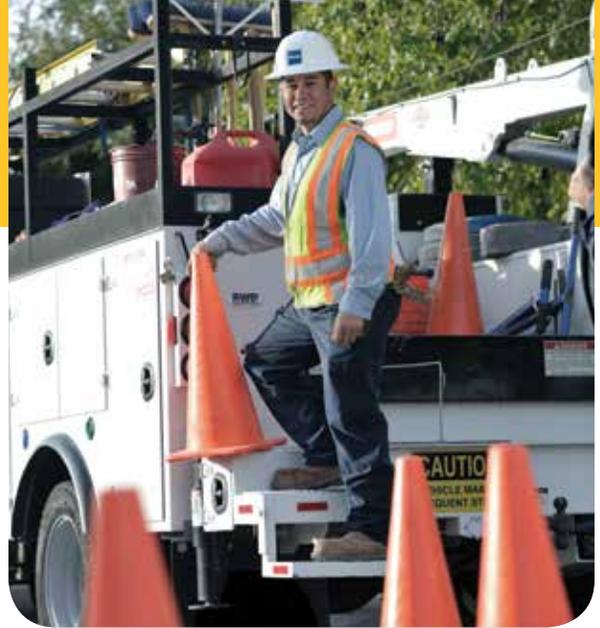
Total Dissolved Solids: An overall indicator of the amount of minerals in water.

MNR: Monitored, not regulated.

gpg (grains per gallon): Used to describe the dissolved hardness minerals contained in water and is a unit of weight that equals 1/7,000 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 that a water system must follow.

N/A: Not Applicable.

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).

WHAT'S IN YOUR WATER



HOW TO READ YOUR WATER QUALITY TABLE

Below, you'll see an analysis of your drinking water.

Here's an example of how to read these tables:

Start here and read across	2014 or year prior	The goal level for that substance	Highest level of substance allowed	Highest amount that was found	Highest and lowest amounts found	Yes means the amount found is below gov't requirements	Where substance usually originates
Substance (units)	Year Sampled	MCLG	MCL	Highest Amount Detected	Range of Detections	Compliance Achieved	Typical Sources

YOUR WATER QUALITY TABLE

The data shown in the tables below are results from commercial laboratories certified in drinking water analysis by the Arizona Department of Health Services.

The table shows what substances were detected in your drinking water during 2014 or the last required sampling period within the last five years.

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 Sources
Arsenic (ppb)	2012	0	10	4.2	4.2	YES	Erosion of natural deposits
Barium (ppm)	2012	2	2	0.06	0.06	YES	Erosion of natural deposits
Fluoride (ppm)	2012	4	4	0.3	0.3	YES	Erosion of natural deposits
Nitrate (ppm)	2014	10	10	0.54	0.54	YES	Runoff from fertilizer use; leaching from septic tanks
Sodium (ppm)	2012	NA	MNR	49	49	YES	Erosion of natural deposits
Combined Radium 226/228 (pCi/L)	2012	0	15	0.4	0.4	YES	Erosion of natural deposits
Gross Alpha excluding Radon and Uranium (pCi/L)	2012	0	15	2.7	2.7	YES	Erosion of natural deposits

WHAT'S IN YOUR WATER

Regulated Substances Measured in the Distribution System

Substance (units)	Year Sampled	MCLG/ MRDLG	MCL/ MRDL	Highest Running Annual Average	Range of Detections	Compliance Achieved	Typical Sources
TTHMs (ppb)	2014	NA ¹	80	7	2.5 - 7	YES	By-product of drinking water disinfection
HAA5 (ppb)	2014	NA ¹	60	ND	ND	YES	By-product of drinking water disinfection
Chlorine residual (ppm)	2014	4	4	0.9	0.7 - 1.1	YES	Water additive used to control microbes

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	Compliance Achieved	Typical Sources
Copper (ppm)	2012	1.3	1.3	10	0.15	0	YES	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	2012	0	15	10	6	1	YES	Corrosion of household plumbing systems; erosion of natural deposits

WHAT'S IN YOUR WATER

Unregulated Substances Measured on the Water Leaving the Treatment Facility

Substance (units)	Year Sampled	Range of Detections	Typical Sources
Boron (ppb)	2013	110	Erosion of natural deposits
Calcium (ppm)	2013	84	Erosion of natural deposits
Chloride (ppm)	2013	76	Erosion of natural deposits
Magnesium (ppm)	2013	28	Erosion of natural deposits
Silica (ppm)	2013	30	Erosion of natural deposits
Strontium (ppb)	2013	840	Erosion of natural deposits
Sulfate (ppm)	2013	163	Erosion of natural deposits
Total Dissolved Solids (mg/L)	2014	414	Erosion of natural deposits
Hardness (grains/gallon)	2014	19.6	Natural calcium and magnesium content
pH (standard units)	2014	7.8	pH is a measure of acid/base properties

Year Sampled: The state requires 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.

TTHM/HAA5: Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants: Trihalomethanes: bromodichloromethane (0.0 mg/L); bromoform (0.0 mg/L; chloroform (0.07 mg/L); dibromochloromethane (0.06 mg/L). Haloacetic acids: dichloroacetic acid (0.0 mg/L; trichloroacetic acid (0.02 mg/L). Monochloroacetic acid (0.07 mg/L), bromoacetic acid and dibromoacetic acid are regulated with this group but have no MCLGs.

ADDITIONAL MONITORING

In addition to the parameters listed in this table, other parameters were monitored for, including regulated pesticides, herbicides, petroleum by-products and metals. None of those parameters were detected in the water. If you have any questions about this report or your drinking water, please call our **Customer Care** team at **1-800-383-0834**.

EPCOR encourages feedback related to the quality of water that is provided to you. Please feel free to submit comments to us directly at mywater@epcor.com. You may also provide feedback to the Arizona Corporation Commission (ACC).



WATER

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 Printed on recycled paper; each ton of recycled paper saves 7,000 gallons of water.