what's in your water?

Water Quality Report

JUNE 2013

Treated, Tested and Safe

A Message from the Director

In our desert environment, water resource management and planning are important to ensure that current and future generations have an adequate water supply. Every drop of Peoria's drinking water is treated using modern, state-of-the-art treatment technology. Hundreds of tests are performed each day to be certain that drinking water meets all federal, state and local water quality standards. This ensures that your drinking water is safe; every drop, every day.

In 2012, Peoria received its drinking water from the following supplies:

Quintero:

- 100% from the Colorado River via the Central Arizona Project.

Vistancia:

- 100% groundwater from wells.

All other areas served by the city:

- 37% from the Colorado River via the Central Arizona Project.
- 39% from the Salt and Verde Rivers via the Salt River Project.
- 24% recovered water pumped from wells.

Peoria's water supply is one of our most valuable assets, making water conservation a necessary way of life. We encourage every citizen to use water wisely and adapt to a water-saving lifestyle.

Within this brochure you'll find valuable information on what you can do to keep our drinking water safe as well as city programs to help you save water, and money. You'll also find our annual water report as mandated by the U.S. Environmental Protection Agency.

If you have questions regarding Peoria's drinking water and programs, feel free to contact me at **623-773-7286.**

William Mattingly, P.E., R.L.S.
Public Works-Utilities Director

Este informe contiene información importante sobre su agua potable.
Si usted tiene preguntas sobre este informe, por favor llame al 623-773-7286.

The information and data contained in this report apply only to those who receive their water from the city of Peoria. There are several private water companies that serve residents in certain areas of the city. If you receive your water from the Sunrise, New River, Rose Valley or EPCOR water companies, you should contact your water supplier directly for water data that affects you:

Sunrise:	623-972-6133; www.jdcwater.com
New River:	623-561-1848
Rose Valley:	623-889-2275; info@rosevalleywaterco.com
EPCOR:	800-383-0834 (Agua Fria District); www.epcor.com

YOUR WATER IS SAFE.

LET'S KEEP IT THAT WAY!

Do your part. Prevent pollution with these good practices:

- ☑ Fix oil leaks in cars
- ☑ Properly drain pool water using home's sewer clean-out, not into the street
- ☑ Minimize use of chemicals on yards
- ☑ Pick up pet waste
- ☑ Safely dispose of household hazardous waste*
- ☑ Cool Fats, Oils, & Grease after cooking in a secure container and dispose in a trash can.
- ☑ Don't flush these items: medication, personal care products, paint, cleaning chemicals, pesticides. These products can make their way into our aquifers!

TAP INTO QUALITY

For more information, visit **www.azstorm.org** and **www.peoriaaz.gov/stormwater**.

Illegal Dumping Hotline (623) 773-7226

Storm Sewer Maintenance (623) 773-7432

* Household Hazardous Waste Disposal **www.peoriaaz.gov/hhw**

Are you overwatering your landscape?

Approximately 70% of residential water use occurs **outside** of the home.

Check your irrigation system regularly to ensure proper operation and use the landscape watering guidelines below when setting irrigation schedules.

Need help? Give your local water conservation professional a call at **623-773-7286** or visit **www.conserve.peoriaaz.gov.**

We're here to help!

Clip and use all year long!

LANDSCAPE WATERING GUIDELINES

WATER USE IT WISELY

How Much & How Often Water to the outer edge of the plant's canopy and to the depth indicated. Watering frequency will vary depending on season, plant type, weather and soil.		Seasonal Frequency — Days Between Waterings				Water This Deeply (Typical Root Depth)
		Spring Mar - May	Summer May - Oct	Fall Oct - Dec	Winter Dec - Mar	
Trees	Desert adapted	14-30 days	7-21 days	14-30 days	30-60 days	24-36 inches
	High water use	7-12 days	7-10 days	7-12 days	14-30 days	24-36 inches
Shrubs	Desert adapted	14-30 days	7-21 days	14-30 days	30-45 days	18-24 inches
	High water use	7-10 days	5-7 days	7-10 days	10-14 days	18-24 inches
Groundcovers & Vines	Desert adapted	14-30 days	7-21 days	14-30 days	21-45 days	8-12 inches
	High water use	7-10 days	2-5 days	7-10 days	10-14 days	8-12 inches
Cacti and Succulents		21-45 days	14-30 days	21-45 days	if needed	8-12 inches
Annuals		3-7 days	2-5 days	3-7 days	5-10 days	8-12 inches
Warm Season Grass		4-14 days	3-6 days	6-21 days	15-30 days	6-10 inches
Cool Season Grass		3-7 days	none	3-10 days	7-14 days	6-10 inches

These guidelines are for established plants (1 year for shrubs, 3 years for trees). Additional water is needed for new plantings or unusually hot or dry weather. Less water is needed during cool or rainy weather. Drip run times are typically 2 hours or more for each watering.

Additional water saving tips can be found at **www.wateruseitwisely.com**

2012 Water Quality Report

ANALYTE	UNITS	PEORIA WATER SYSTEM		QUINTERO WATER SYSTEM		VISTANCIA WATER SYSTEM		EPA LIMIT	EPA LIMIT	POSSIBLE SOURCES
		RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	MCL	MCLG	
Alkalinity	mg/L	120 - 180	141	106 - 146	130	200¥‡	200¥‡	N/A	N/A	Naturally present
Aluminum	µg/L	ND - 140	93	~	~	~	~	N/A	N/A	NA
Calcium	mg/L	24‡	24‡	~	~	62¥‡	62¥‡	N/A	N/A	Erosion of natural deposits
Hardness	Gr/gal	5 - 17	10	16 - 17	16	15.7 - 16.1	15.9	N/A	N/A	Naturally present
pH	pH Units	6.8 - 8.2	7.6	7.2 - 8.5	7.9	7.2 - 7.6	7.4	N/A	N/A	NA
Magnesium	mg/L	14‡	14‡	~	~	25¥‡	25¥‡	N/A	N/A	Erosion of natural deposits
Sulfate	mg/L	37.6‡	37.6‡	260‡◊	260‡◊	77¥‡	77¥‡	N/A	250	Naturally present
Sodium	mg/L	53 - 75	64	102‡	102‡	52	52	N/A	N/A	Naturally present
Total Dissolved Solids	mg/L	294‡	294‡	~	~	440¥‡	440¥‡	N/A	N/A	Naturally present
Bromate*	µg/L	ND - 7.1	3.8	~	~	~	~	10	0	By-product of drinking water ozonation
Total Organic Carbon % Removal	%	19.9 - 54.1%	36.9%	14.8 - 48.8%	26.5%	~	~	TT	N/A	Naturally present in the environment
Total Trihalo-methanes*	µg/L	1.4 - 84*	40**	ND - 5.3	1.63**	5.8 - 35	15.4	80*	N/A	By-product of drinking water chlorination
Total Haloacetic Acids	µg/L	ND - 31	15**	ND	ND	ND - 5.6	2.1	60*	N/A	By-product of drinking water chlorination
Arsenic*	µg/L	ND - 7.8*	7.5*	2.8 - 3.4	3.1*	4.9 - 5.9	5.4 (average)	10	0	Erosion of natural deposits; Runoff from orchards
Barium	mg/L	0.02 - 0.12	0.06	0.12‡	0.12‡	0.04 - 0.05	0.04	2	2	Erosion of natural deposits
Chromium	µg/L	ND - 15	7.5	ND	ND	ND	ND	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride	mg/L	ND - 0.78	0.29	0.30 - 0.32	0.31	ND - 0.27	0.16	4	N/A	Erosion of natural deposits
Nitrate	mg/L	ND - 9.4	3.76	ND - 0.32	0.20	1.59 - 1.8	1.68	10	10	Fertilizer runoff, erosion of natural deposits
Selenium	µg/L	2	2	3.0‡	3.0‡	3 - 5	4	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Dibromochloro-propane	ng/L	ND - 30	7.1	ND	ND	ND	ND	200	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb	µg/L	ND - 0.3	0.06	ND	ND	ND	ND	7	7	Runoff from herbicides used on soybeans and vegetables
Ethylbenzene	µg/L	ND - 0.8	0.09	ND	ND	ND	ND	700	700	Discharge from petroleum refineries
Xylenes	mg/L	ND - 0.0066	0.00085	ND	ND	ND	ND	10	10	Discharge from petroleum factories; Discharge from chemical factories
Gross Alpha*	pCi/L	1.5‡	1.5‡	ND ◊	ND ◊	3.3 - 4.2	3.6	15	0	Erosion of natural deposits
Gross Alpha Adjusted*	pCi/L	ND - 2.2	1.0	N/A	N/A	N/A	N/A	15	0	Erosion of natural deposits
Gross Beta	pCi/L	ND - 6	2.5	N/A	N/A	N/A	N/A	50***	0	Erosion of natural deposits
Uranium	µg/L	1.6 - 5	2.95	4.5-4.9 Ж	4.7 Ж	3.9¥‡	3.9¥‡	30	0	Erosion of natural deposits
Turbidity	NTU	0.095 100.0%	N/A N/A	0.093 100.0%	N/A N/A	~ ~	~ ~	TT=1 NTU TT=% of samples <0.3 NTU	0 0	Soil Runoff Soil Runoff
Total Coliforms	P/A	1%	N/A	0***	N/A	0***	N/A	5% of monthly samples are positive	0	Naturally present
Fecal coliform or E. coli bacteria	P/A	0.00%	N/A	0***	N/A	0***	N/A		0	Human or animal fecal waste
Chlorine Residual	mg/L	0.32 - 2.2	1.05**	ND - 1.79	1.04**	0.51 - 2.12	1.14	4	4	Water additive used to control microbes

ANALYTE	UNITS	90TH PERCENTILE REPORTED	NUMBER OF SITES ABOVE AL	90TH PERCENTILE REPORTED	NUMBER OF SITES ABOVE AL	90TH PERCENTILE REPORTED	NUMBER OF SITES ABOVE AL	EPA ACTION LEVEL (AL)	EPA LIMIT MCLG	POSSIBLE SOURCES
Copper	mg/L	0.31 ◊	None	0.34 ◊	None	0.39	None	1.3	1.3	Erosion of natural deposits, corrosion of home plumbing systems
Lead	µg/L	2 ◊	None	15 ◊	One	2.9	None	15	0	Erosion of natural deposits, corrosion of home plumbing systems

KEY TO TABLE

AL **Action Level -** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

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.

µg/L **Micrograms per liter -** Unit of measurement equal to parts per billion

mg/L **Milligrams per liter -** Unit of measurement equal to parts per million

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.

ng/L **Nanograms per liter -** Unit of measurement equal to parts per trillion.

N/A **Not applicable**

ND **Not detected**

NTU **Nephelometric Turbidity Unit -** Measure of how light is scattered by particulate matter in water.

P/A **Presence/Absence**

pCi/L **Pico-Curies per liter -** Measure of radioactivity

TT **Treatment Technique -** Required process intended to reduce the level of a contaminant in drinking water.

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

*** Reported RAA for quarters 1-3 are based on results from previous quarters not reported on this table.*

**** 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.*

^ EPA considers 50 pCi/L to be the level of concern for beta particles.

‡ Only one sample collected.

~ Not Required

Ж Data from 2008

◊ Data from 2010

¥ Data from 2011

Source Water Assessment

The Arizona Department of Environmental Quality (ADEQ) performed a source water assessment for 24 wells used by the City. The assessment reviewed the adjacent land uses that may pose a potential risk to the sources. One of Peoria's wells was found to have one adjacent land use that posed a high risk of contamination. Please understand that this one well's high risk rating does not imply poor water quality, only its potential to becoming contaminated. The assessment report is available for review at ADEQ, 1110 W. Washington Street, Phoenix, AZ 85007 between the hours of 8 am – 5 pm. Electronic copies are available from ADEQ at dml@azdeq.gov.

To learn more about water quality...

ADEQ:	www.azdeq.gov
Maricopa County:	www.maricopa.gov/envsvc
Peoria:	www.peoriaaz.gov/utilities
Tap Into Quality	www.tapintoquality.com
USEPA:	www.water.epa.gov/drink

Message from the Environmental Protection Agency

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) 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 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 **EPA's Safe Drinking Water Hotline (1-800-426-4791).**

The sources of drinking water (both tap 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 be from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;
- **Inorganic contaminants,** such as salts and metals, that 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** that 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, that 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** that can be naturally-occurring or can be the result of oil and gas production and mining activities.

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 can be particularly at risk from infections. These people should seek advice from their health care providers. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants along with more information about contaminants and potential health effects are available from the **Safe Drinking Water Hotline (800-426-4791).**

NITRATE, ARSENIC, LEAD & COPPER, TRIHALOMETHANES AND TURBIDITY

Nitrate at levels above 10 mg/L 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, ask advice from your health care provider.

While your drinking water meets EPA's standard for Arsenic, it does contain low levels. 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.

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. The City of Peoria 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 drinking 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 **EPA's Safe Drinking Water Hotline, 1-800-426-4791**, or at **http://www.epa.gov /lead.**

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.