

A close-up photograph of a young girl with her eyes closed, smiling as she drinks water from a public fountain. The water is captured mid-pour, creating a clear stream that falls into her open mouth. The fountain is made of polished metal. The background is a soft-focus green, suggesting an outdoor setting.

# what's in your water?



**Water Quality Report**  
JUNE 2015

# “Treated, Tested and Safe”

## *A Message from the Director*

In the desert southwest, 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 2014, Peoria received its drinking water from the following supplies:

### **Quintero:**

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

### **Vistancia:**

- 100% recovered (well) water

### **All other areas served by the city:**

- 43% from the Colorado River via the Central Arizona Project
- 40% from the Salt and Verde Rivers via the Salt River Project
- 17% recovered (well) water

As shown above, Peoria’s water resources portfolio, acquired through decades of planning and foresight by City leaders, is a study in diversity. Even with the significant growth and dry periods experienced by Peoria in recent decades, the City has not had to restrict your water usage due to supply shortages, and it doesn’t expect to do so any time soon.

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.

This brochure provides information on Peoria’s water cycle as well as your annual water quality report. This report is a summary of the thousands of tests and measurements performed by the city during the 2014 calendar year. Our dedicated staff of certified and highly trained water professionals works round the clock to ensure that the City provides drinking water that is treated, tested and safe.

Sincerely,

**William Mattingly, P.E., R.L.S.**

*Public Works-Utilities Director*

623-773-7286

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*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

Rose Valley: 623-889-2275; [info@rosevalleywaterco.com](mailto:info@rosevalleywaterco.com)

New River: 623-561-1848

EPCOR: 800-383-0834 (Agua Fria District)

# PRECIPITATION

Rain and snow creates our water supply.

## STORMWATER

Runoff goes into storm drains then to rivers.

Reclaimed water is used for landscaping.

Some water soaks deep into the ground.

Aquifers are geological formations which absorb water like a giant sponge!

Some water is recovered for drinking supply.

## RECHARGE

Reclaimed water is stored in aquifer.

Purple pipes deliver reclaimed water.

## WATER RECLAMATION

Used water undergoes multiple purification steps at treatment plants.

## AZ RIVER WATER

## WATER TREATMENT

Surface water undergoes multiple purification steps.

## THE LIFE CYCLE OF URBAN WATER

When water evaporates from water bodies (such as oceans, lakes, and rivers), it forms clouds and returns to earth as precipitation (rain or snow). The amount of water that evaporates each year and the amount that falls back to the ground are virtually constant, meaning that the amount of water on earth does not change. So if a drought occurs in a specific region, it is not because the world's rainfall for the year is less, but because the water is falling somewhere else on earth.

## THERE IS NO NEW WATER!

Take care of what we have!

**WELL WATER** Water is pumped out of the ground & disinfected.

## WASTEWATER COLLECTION

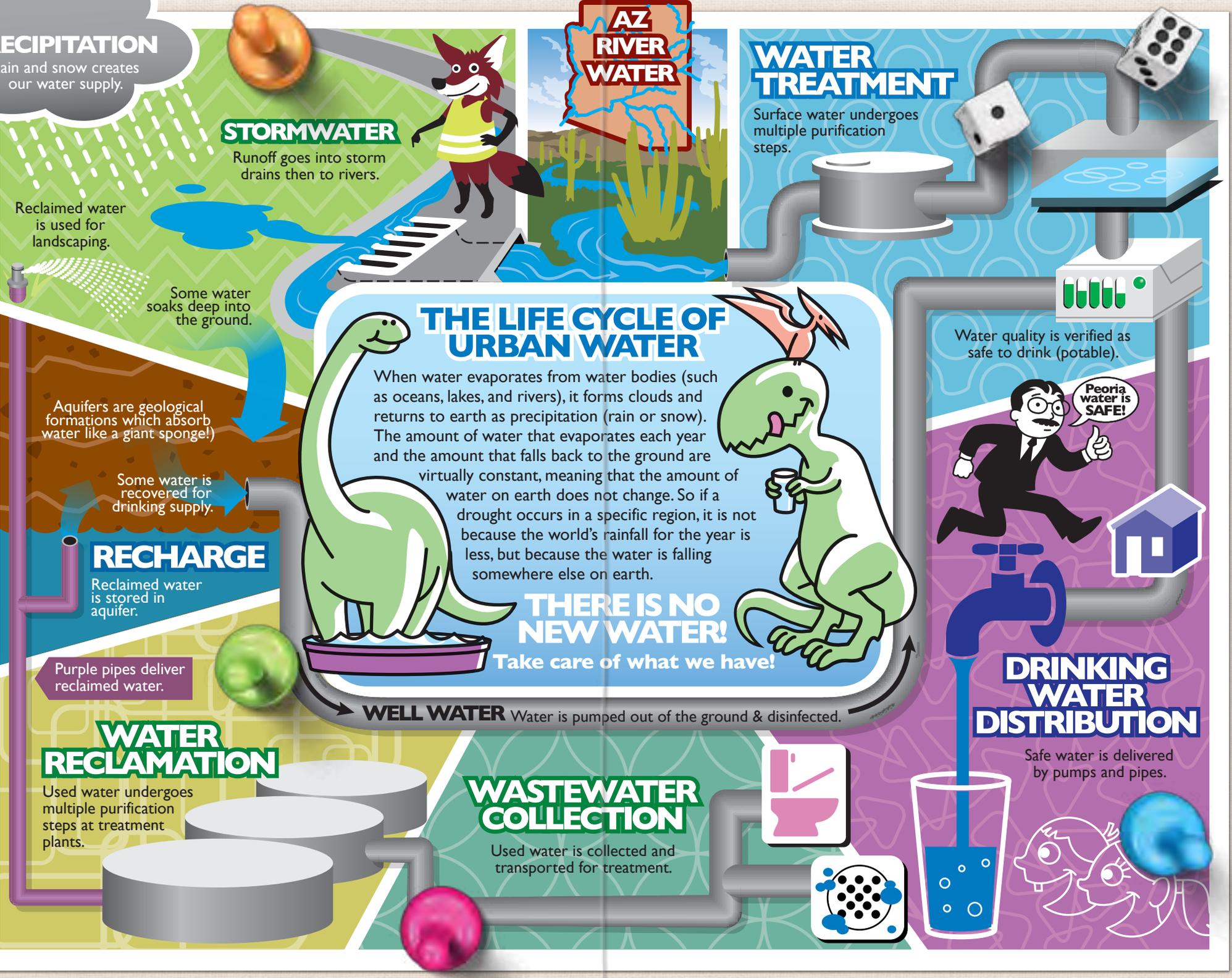
Used water is collected and transported for treatment.

Water quality is verified as safe to drink (potable).

Peoria water is SAFE!

## DRINKING WATER DISTRIBUTION

Safe water is delivered by pumps and pipes.



# 2014 Water Quality Report

ANALYTE	UNITS	PEORIA WATER SYSTEM 04-07-096		QUINTERO WATER SYSTEM 04-07-513		VISTANCIA WATER SYSTEM 04-07-520		EPA LIMIT	EPA LIMIT	POSSIBLE SOURCES
		RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	MCL	MCLG	
Alkalinity	ppm	109 - 218	162	127 - 148	140	196 - 197	196	N/A	N/A	Naturally present
Calcium	ppm	13 - 56 (2013)	37 (2013)	70	70	81 - 98	90	N/A	N/A	Erosion of natural deposits
Hardness	grains/gal	4 - 17	10	16 - 17	16	14.5 - 16.1	15.3	N/A	N/A	Naturally present
pH	pH Units	7.2 - 8.4	7.8	7.2 - 9.8	8.1	7.3 - 8.2	7.5	N/A	N/A	N/A
Magnesium	ppm	8 - 28	19	25	25	25 (2011)	25 (2011)	N/A	N/A	Erosion of natural deposits
Sodium	ppm	31 - 206	68	94 - 103	98	57 - 63	60	N/A	N/A	Naturally present
Total Dissolved Solids	ppm	294	294	N/A	N/A	440 (2011)	440 (2011)	N/A	N/A	Naturally present
Bromate	ppb	ND - 5.5	3.2	N/A	N/A	N/A	N/A	10	0	By-product of drinking water ozonation
Total Organic Carbon % Removal	%	25 - 78	42.0%	17 - 31	22.0%	N/A	N/A	TT	N/A	Naturally present in the environment
Total Trihalo-methanes	ppb	1.2 - 87.9	46	ND - 2.1	0.9	7.1 - 31.5	14.5	80	N/A	By-product of drinking water chlorination
Total Haloacetic Acids	ppb	ND - 39	18	ND	ND	3.1 - 4.8	4	60	N/A	By-product of drinking water chlorination
Arsenic	ppb	1.3 - 8.8	5.5	3 - 3.3	3.2	3.4 - 6	4.6	10	0	Erosion of natural deposits; Runoff from orchards
Barium	ppm	0.02 - 0.08	0.04	0.11 - 0.12	0.12	0.07 - 0.08	0.07	2	2	Erosion of natural deposits
Chromium	ppb	ND - 22	10.5	ND	ND	5.00	5.00	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride	ppm	0.08 - 0.65	0.25	0.28 - 0.30	0.29	0.05 - 0.36	0.25	4	N/A	Erosion of natural deposits; Water additive to promote strong teeth
Nitrate	ppm	0.6 - 8*	4	ND - 0.3	0.3	0.19 - 1.6	0.97	10	10	Fertilizer runoff; erosion of natural deposits
Selenium	ppb	ND - 6.6	3.1	3.2 - 4.8	4.0	2.3 - 3.1	2.7	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Dibromochloro-propane	ppt	ND - 40	2.9	ND	ND	ND	ND	200	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Xylenes	ppb	ND - 4.7	3.20	ND	ND	ND	ND	10,000	10,000	Discharge from petroleum factories; Discharge from chemical factories
Gross Alpha	pCi/L	1.8 - 2.7	2.2	3.6	3.6	3 - 4.5	3.6	15	0	Erosion of natural deposits
Gross Alpha Adjusted	pCi/L	0.8	0.8	0.5	0.5	N/A	N/A	15	0	Erosion of natural deposits
Uranium	ppb	1.7	1.7	2.9	2.9	3.9 (2011)	3.9 (2011)	30	0	Erosion of natural deposits
Turbidity	NTU	0.23	N/A	0.14	N/A	N/A	N/A	TT=1 NTU	0	Soil Runoff
	NTU	100.0%	N/A	100.0%	N/A	N/A	N/A	TT=% of samples <0.3 NTU	0	Soil Runoff
Total Coliforms	Present/Absent	0%	N/A	0**	N/A	2**	N/A	5% of monthly samples are positive	0	Naturally present
Chlorine Residual	ppm	0.2 - 2.2	0.96	0.2 - 2.7	0.94	0.2 - 3.4	0.95	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	ppm	0.33 (2013)	One	1.06 (2013)	None	0.39 (2012)	None	1.3	1.3	Erosion of natural deposits; Corrosion of home plumbing systems
Lead	ppb	1.6 (2013)	None	8.1 (2013)	None	2.9 (2012)	None	15	0	Erosion of natural deposits; Corrosion of home plumbing systems

KEY TO TABLE	
<b>AL</b>	<b>Action Level</b> - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
<b>MCL</b>	<b>Maximum Contaminant Level</b> - 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.
<b>MCLG</b>	<b>Maximum Contaminant Level Goal</b> - 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.
<b>MRL</b>	<b>Minimum Reporting Level</b> - The lowest accurately reportable concentration.
<b>MRDL</b>	<b>Maximum Residual Disinfectant Level</b> - 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.
<b>MRDLG</b>	<b>Maximum Residual Disinfectant Level Goal</b> - 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.
<b>N/A</b>	<b>Not Applicable.</b>
<b>ND</b>	<b>Not Detected.</b>
<b>NTU</b>	<b>Nephelometric Turbidity Unit</b> - Measure of how light is scattered by particulate matter in water.
<b>pCi/L</b>	<b>pico-Curies per Liter</b> - Measure of radioactivity.
<b>ppb</b>	<b>parts per billion</b> - Unit of measurement equal to micrograms per liter.
<b>ppm</b>	<b>parts per million</b> - Unit of measurement equal to milligrams per liter.
<b>ppt</b>	<b>parts per trillion</b> - Unit of measurement equal to nanograms per liter.
<b>TT</b>	<b>Treatment Technique</b> - Required process intended to reduce the level of a contaminant in drinking water.

\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2014 we did not monitor for Nitrate at two of our wells. Although they were unintentionally not tested, these two sites are on a reduced monitoring schedule due to very low historical Nitrate concentrations. Samples were taken in January 2015 with results well within safe drinking water standards.

\*\*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. A notification letter was sent to residents.

## 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](mailto:dml@azdeq.gov).

### To learn more about water quality...

- Peoria: [www.peoriaaz.gov/utilities](http://www.peoriaaz.gov/utilities)
- USEPA: <http://water.epa.gov/drink>
- ADEQ: [www.azdeq.gov](http://www.azdeq.gov)
- Maricopa County: [www.maricopa.gov/envsvic](http://www.maricopa.gov/envsvic)
- Tap Into Quality: [www.tapintoquality.com](http://www.tapintoquality.com)
- Water Use It Wisely: [www.wateruseitwisely.com](http://www.wateruseitwisely.com)



2014 Results for Unregulated Contaminant Monitoring Rule (UCMR3)				
ANALYTE	UNITS	RANGE	AVERAGE	MRL
Chromium-6	ppb	0.038	0.038	0.03
Molybdenum	ppb	ND - 4.1	2.0	1
Strontium	ppb	920	920	0.3
Vanadium	ppb	2.00	2.00	0.2

Peoria is committed to protecting public health. The US Environmental Protection Agency (EPA) requires us to collect data on 28 currently unregulated contaminants. They then use the results from this monitoring to determine whether or not to regulate these substances in the future. There are no Maximum Limits at this time. Instead, results are reported to the Minimum Reporting Level (MRL - the lowest accurately reportable limit). Only the 4 substances listed were detected. This monitoring study will continue through the end of 2015. Should new regulations be developed, Peoria will ensure that your drinking water continues to be treated, tested and safe.

## A 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 (1-800-426-4791)**.

### 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 [www.epa.gov/lead](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.