Diversified Water Utilities, Inc.
2017 Annual Drinking Water Quality Report, PWS AZ04-11-043

Este informe contiene información muy importante sobre el agua usted bebe. Tradúscalo ó hable con alguien que lo entienda bien.

We are pleased to present to you this water quality report for 2017. Our constant goal is to provide you with a safe and dependable supply of drinking water. Last year we met all EPA and State drinking water health standards.

General Information About Drinking Water

All 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 the water poses a health risk. 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 of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

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. Contaminants that may be present in source water include:

- *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 stormwater 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 stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

- *Radioactive contaminants*, that 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, the Arizona Department of Environmental Quality prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Our Water Source

Ground Water is the source of the water we supply.

Source Water Assessments on file with the Arizona Department of Environmental Quality are available for public review. If a Source Water Assessment is available, you may obtain a copy of it by contacting the Arizona Source Water Coordinator at (602) 771-4641.

Potential sources of contamination in our source water area come from, but are not limited to, gas stations, landfills, dry cleaners, agriculture fields, waste water treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, they were ranked as to their potential to affect the water source. The assessment was that our wells are at low risk.

The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination **has or will** occur. We use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Please contact Scott Gray of Diversified Water Utilities, Inc. at (602) 840-9400 or visit the ADEQ's Source Water Assessment and Protection Unit website at www.azdeq.gov/environ/water/dw/swap.html to learn more about what you can do to help protect your drinking water sources, any questions about the annual drinking water quality report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

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Terms and Abbreviations

To help you understand the terms and abbreviations used in this report, we have provided the following definitions:

- *Parts per million (ppm) or Milligrams per liter (mg/L)* - one part per million corresponds to one minute in two years or a single penny in $10,000.
- *Parts per billion (ppb) or Micrograms per liter (µg/L)*- one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- *Parts per trillion (ppt) or Nanograms per liter (nanograms/L)* - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.
- *Parts per quadrillion (ppq) or Picograms per liter (picograms/L)* - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.
- *Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.
- *Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- *Action Level (AL)* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- *Action Level Goal (ALG)* - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. The ALG allows for a margin of safety.
- *Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- *Maximum Contaminant Level Goal* (MCLG) - The "Goal" is 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.
- *Maximum Contaminant Level* (MCL) - The "Maximum Allowed" is 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.
- *MFL* - Million fibers per liter.
- *MREM* - Millirems per year – a measure of radiation absorbed by the body.
- *NA - Not Applicable* - sampling was not completed by regulation or was not required.
- *Maximum Residual Disinfectant Level Goal* (MRDLG): 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.
- *Maximum Residual Disinfectant Level* (MRDL): 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.
- *Running Annual Average (RAA):* An average of monitoring results for the previous 12 calendar months.

Water Conservation

Think you've done everything possible to save water but still looking for ways to do more? You might be surprised to learn that there's even more ways to save water. The Water – Use It Wisely Web site, **www.wateruseitwisely.com**, has a listing of ideas and resources that can help you conserve water and ultimately save money.

Health Effects Information About the Tables Below

Nitrate in drinking water at levels above 10 ppm 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, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If **arsenic** is less than the MCL, your drinking water meets EPA's standards. 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.

Lead: 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. Diversified Water Utilities 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.

Water Quality Data

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The State of Arizona requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old.

These tables show the results of our monitoring for the period of January 1 to December 31, 2017, unless otherwise noted.

Contaminant (units)	Violation Y / N	Highest Level Detected	Range of All Samples (L-H) Absent (A) or Present (P)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Microbiological							
Total Coliform Bacteria (System takes ≤ monthly samples)	N	0	Absent	0	0	5 samples per month	Naturally Present in Environment
Fecal coliform and E. Coli (TC Rule)	N	0	Absent	0	0	5 samples per month	Human and animal fecal waste
Fecal Indicators (GW Rule) (E. Coli, enterococci or coliphage)	N	0	Absent	0	0	5 samples per month	Human and animal fecal waste
Disinfectants							
Chlorine (PPM)	N	1.75	.44 to 1.75	MRDL = 4	MRDLG = 4	RAA	Water additive used to control microbes
Disinfection By-Products							
Haloacetic Acids (ppb) (HAA5)	N	5	1 to 5	60	n/a	7/11/2017	By-product of drinking water disinfection
Total Trihalomethanes (ppb) (TTHM)	N	24	5 to 24	80	n/a	7/11/2017	By-product of drinking water disinfection
Radionuclides							
Alpha emitters (pCi/L)	N	1.6	1.6	15	0	3/31/2016	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	N	< 0.7	±0	5	0	3/31/2016	Erosion of natural deposits
Organic Chemical (IOC)							
Antimony (ppb)	N	< 1	±0	6	6	3/31/2016	Discharge from petroleum refineries; fire retardants; ceramics; electronics and solder
Arsenic (ppb)	N	1.4	1.4	10	0	3/31/2016	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	N	< 0.07	±0	7	7	3/4/2013	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	N	0.027	0.027	2	2	3/31/2016	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	N	< 1	±0	4	4	3/31/2016	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	N	< 0.5	±0	5	5	3/31/2016	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	N	1	1	100	100	3/31/2016	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N	< 25	±0	200	200	3/31/2016	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	N	0.31	.29 to 0.31	4	4	3/31/2016	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	N	< 0.2	±0	2	2	3/31/2016	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland
Nitrate (ppm)	N	1.64	1.3	10	10	5/3/2017	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Contaminant (units)	Violation Y / N	Highest Level Detected	Range of All Samples (L-H) Absent (A) or Present (P)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Organic Chemical (IOC) cont'd							
Nitrite (ppm)	N	< 0.05	±0	1	1	3/4/2013	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	N	< 5	±0	50	50	3/31/2016	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium (ppb)	N	< 1	±0	2	0.5	3/31/2016	Leaching from ore-processing sites; discharge from electronics, glass and drug factories
Volatile Organics							
Benzene (ppb)	N	< .5	±0	5	0	5/3/2017	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	N	< .5	±0	5	0	5/3/2017	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	N	< .5	±0	100	100	5/3/2017	Discharge from chemical and agricultural chemical factories
o - Dichlorobenzene (ppb)	N	< .5	±0	600	600	5/3/2017	Discharge from industrial chemical factories
p - Dichlorobenzene (ppb)	N	< .5	±0	75	75	5/3/2017	Discharge from industrial chemical factories
1,2 - Dichloroethane (ppb)	N	< .5	±0	5	0	5/3/2017	Discharge from industrial chemical factories
1,1 - Dichloroethylene (ppb)	N	< .5	±0	7	7	5/3/2017	Discharge from industrial chemical factories
cis-1,2 - Dichloroethylene (ppb)	N	< .5	±0	70	70	5/3/2017	Discharge from industrial chemical factories
trans-1,2 - Dichloroethylene (ppb)	N	< .5	±0	100	100	5/3/2017	Discharge from industrial chemical factories
Dichloromethane (ppb)	N	< .5	±0	5	0	5/3/2017	Discharge from Pharmaceutical and chemical factories
1,2 - Dichloropropane (ppb)	N	< .5	±0	5	0	5/3/2017	Discharge from industrial chemical factories
Ethylbenzene (ppb)	N	< .5	±0	700	700	5/3/2017	Discharge from petroleum refineries
Styrene (ppb)	N	< .5	±0	100	100	5/3/2017	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	N	< .5	±0	5	0	5/3/2017	Discharge from factories and dry cleaners
1,2,4 - Trichlorobenzene (ppb)	N	< .5	±0	70	70	5/3/2017	Discharge from textile-finishing factories
1,1,1 - Trichloroethane (ppb)	N	< .5	±0	200	200	5/3/2017	Discharge from factories and dry cleaners
Trichloroethylene (ppb)	N	< .5	±0	5	0	5/3/2017	Discharge from metal degreasing sites and other factories
Toluene (ppm)	N	< .5	±0	1	1	5/3/2017	Discharge from Petroleum Factories
Vinyl Chloride (ppb)	N	< .3	±0	2	0	5/3/2017	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	N	< .5	±0	10	10	5/3/2017	Discharge from petroleum or chemical factories

Contaminant (units)	Violation Y / N	90th Percentile AND Number of Samples Over the AL	Range of All Samples (L-H)	AL	ALG	Sample Month Year	Likely Source of Contamination
Copper (ppm)	N	90th Percentile = 0.15	0.005 to .59	1.3	1.3	7/11/2016	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	90th Percentile = 2.1	<1 to 2.6	15	0	7/11/2016	Corrosion of household plumbing systems; erosion of natural deposits

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