

# Consumer Confidence Report for Calendar Year **2023**

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

Public Water System ID Number		Public Water System Name	
AZ04-11-044		Queen Valley DWID	
Contact Name and Title		Phone Number	E-mail Address
Richard Matthews - Manager		520-463-2780	qwwater@mchsi.com
We want our valued customers to be informed about their water quality. If you would like to learn more about public participation or to attend any of our regularly scheduled meetings, please contact <u>Yvette Rivera</u> at <u>520-463-2780 / qwwater@mchsi.com</u> for additional opportunity and meeting dates and times.			

## Drinking Water Sources

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 pickup substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

**Our water source(s):** [Phoenix AMA Ground water wells](#)

## Drinking Water Contaminants

**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 that 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:** Such as agriculture, urban storm water runoff, and residential uses that may come from a variety of sources

**Organic Chemical Contaminants:** Such as synthetic and volatile organic chemicals, which are by-products 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.

## Vulnerable Population

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. 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 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 visit the EPA *Safe Drinking Water website* at [www.epa.gov/sdwa](http://www.epa.gov/sdwa).

## Source Water Assessment

• Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the department has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. Further source water assessment documentation can be obtained by contacting ADEQ.

## Definitions

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water

**Level 1 Assessment:** A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria was present

**Level 2 Assessment:** A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria was present

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health

**Maximum Residual Disinfectant Level (MRDL):** The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur

**Minimum Reporting Limit (MRL):** The smallest measured concentration of a substance that can be reliably measured by a given analytical method

**Millirems per year (MREM):** A measure of radiation absorbed by the body

**Not Applicable (NA):** Sampling was not completed by regulation or was not required

**Not Detected (ND or <):** Not detectable at reporting limit

**Nephelometric Turbidity Units (NTU):** A measure of water clarity

**Million fibers per liter (MFL)**

**Picocuries per liter (pCi/L):** Measure of the radioactivity in water

**ppm:** Parts per million or Milligrams per liter (mg/L)

**ppb:** Parts per billion or Micrograms per liter (µg/L)

**ppt:** Parts per trillion or Nanograms per liter (ng/L)      ppm x 1000 = ppb

**ppq:** Parts per quadrillion or Picograms per liter (pg/L)      ppb x 1000 = ppt  
ppt x 1000 = ppq

## Lead Informational Statement:

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. **QUEEN VALLEY** 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. 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](http://www.epa.gov/safewater/lead).

## Water Quality Data – Regulated Contaminants

Microbiological (RTCR)	TT Violation Y or N	Number of Positive Samples	Positive Sample(s) Month & Year	MCL	MCLG	Likely Source of Contamination	
E. Coli	N	0	N/A	0	0	Human and animal fecal waste	
Fecal Indicator (coliphage, enterococci and/or E. coli)	N	0	N/A	0	0	Human and animal fecal waste	
Disinfectants	MCL Violation Y or N	Running Annual Average (RAA)	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
Chlorine/Chloramine (ppm)	N	0.22	.2-.25	4	4	2023	Water additive used to control microbes
Disinfection By-Products	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination

<b>Haloacetic Acids (HAA5) (ppb)</b>	N	ND	0	60	N/A	9/2021	Byproduct of drinking water disinfection
<b>Total Trihalomethanes (TTHM) (ppb)</b>	N	6.6	0-1.2	80	N/A	9/2021	Byproduct of drinking water disinfection
<b>Lead &amp; Copper</b>	<b>MCL Violation Y or N</b>	<b>90<sup>th</sup> Percentile</b>	<b>Number of Samples Exceeds AL</b>	<b>AL</b>	<b>ALG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
<b>Copper (ppm)</b>	N	.032	0	1.3	1.3	9/2021	Corrosion of household plumbing systems; erosion of natural deposits
<b>Lead (ppb)</b>	N	0	0	15	0	9/2021	Corrosion of household plumbing systems; erosion of natural deposits
<b>Radionuclides</b>	<b>MCL Violation Y or N</b>	<b>Running Annual Average (RAA) OR Highest Level Detected</b>	<b>Range of All Samples (Low-High)</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
<b>Alpha Emitters (pCi/L)</b>	N	4.9		15	0	2/2019	Erosion of natural deposits
<b>Combined Radium-226 &amp; -228 (pCi/L)</b>	N	ND		5	0	2/2021	Erosion of natural deposits
<b>Uranium (ug/L)</b>	N	ND		30	0	2/2021	Erosion of natural deposits
<b>Inorganic Chemicals (IOC)</b>	<b>MCL Violation Y or N</b>	<b>Running Annual Average (RAA) OR Highest Level Detected</b>	<b>Range of All Samples (Low-High)</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
<b>Antimony (ppb)</b>	N	<0.001	<0.001	6	6	2/2021	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
<b>Arsenic<sup>1</sup> (ppb)</b>	N	<0.001	<0.001	10	0	2/2021	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
<b>Asbestos (MFL)</b>	N	<0.001	<0.001	7	7	2/2021	Decay of asbestos cement water mains; Erosion of natural deposits
<b>Barium (ppm)</b>	N	0.024	0.024	2	2	2/2021	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
<b>Beryllium (ppb)</b>	N	<0.001	<0.001	4	4	2/2021	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
<b>Cadmium (ppb)</b>	N	<0.0005	<0.0005	5	5	2/2021	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
<b>Chromium (ppb)</b>	N	<0.001	<0.001	100	100	2/2021	Discharge from steel and pulp mills; Erosion of natural deposits
<b>Cyanide (ppb)</b>	N	<0.025	<0.025	200	200	2/2021	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
<b>Fluoride (ppm)</b>	N	0.42	0.42	4	4	2/2021	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Mercury (ppb)</b>	N	<0.0002	<0.0002	2	2	2/2021	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
<b>Nitrate<sup>2</sup> (ppm)</b>	N	4.05	2.5 – 6.8	10	10	3/2023	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Nitrite (ppm)</b>	N	<0.001	<0.001	1	1	2/2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Selenium (ppb)</b>	N	<0.005	<0.005	50	50	2/2021	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
<b>Sodium (ppm)</b>	N	40	36-43	N/A	N/A	2/2021	Erosion of natural deposits
<b>Thallium (ppb)</b>	N	<0.001	<0.001	2	0.5	2/2021	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

<sup>1</sup> **Arsenic** is a mineral known to cause cancer in humans at high concentration and is linked to other health effects, such as skin damage and circulatory problems. If arsenic is less than or equal to 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, and continues to research the health effects of low levels of arsenic.

<sup>2</sup> **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.

Synthetic Organic Chemicals (SOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
2,4-D (ppb)	N	<0.0001	<0.0001	70	70	2/2021	Runoff from herbicide used on row crops
2,4,5-TP (a.k.a. Silvex) (ppb)	N	<0.0002	<0.0002	50	50	2/2021	Residue of banned herbicide
Atrazine (ppb)	N	<0.0001	<0.0001	3	3	7/2021	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH) (ppt)	N			200	0	7/2021	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	N	<0.0005	<0.0005	40	40	2/2021	Leaching of soil fumigant used on rice and alfalfa
Dalapon (ppb)	N	<0.001	<0.001	200	200	2/2021	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate (ppb)	N	ND		400	400	7/2021	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	N	<0.0006	<0.0006	6	0	3/2023	Discharge from rubber and chemical factories
Dinoseb (ppb)	N	<0.0002	<0.0002	7	7	2/2021	Runoff from herbicide used on soybeans and vegetables
Diquat (ppb)	N	<0.0004	<0.0004	20	20	2/2021	Runoff from herbicide use
Endothall (ppb)	N	<0.005	<0.005	100	100	2/2021	Runoff from herbicide use
Endrin (ppb)	N	<0.00001	<0.00001	2	2	7/2021	Residue of banned insecticide
Glyphosate (ppb)	N	<0.006	<0.006	700	700	2/2021	Runoff from herbicide use
Heptachlor (ppt)	N	<0.00001	<0.00001	400	0	7/2021	Residue of banned termiticide
Heptachlor epoxide (ppt)	N	<0.00001	<0.00001	200	0	7/2021	Breakdown of heptachlor
Hexachlorobenzene (ppb)	N	ND		1	0	7/2021	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclo pentadiene (ppb)	N	ND		50	50	7/2021	Discharge from chemical factories
Methoxychlor (ppb)	N	<0.00005	<0.00005	40	40	7/2021	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa,
PCBs [Polychlorinated biphenyls] (ppt)				500	0		Runoff from landfills; discharge of waste chemicals
Picloram (ppb)	N	<0.0001	<0.0001	500	500	2/2021	Herbicide runoff
Simazine (ppb)	N	ND		4	4	7/2021	Herbicide runoff
Toxaphene (ppb)	N	<0.0005	<0.0005	3	0	2/2021	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Chemicals (VOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Benzene (ppb)	N	<0.0005	<0.0005	5	0	3/2023	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	N	<0.0005	<0.0005	5	0	3/2023	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	N	ND		100	100	3/2023	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	N	<0.0005	<0.0005	600	600	3/2023	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	N	<0.0005	<0.0005	75	75	3/2023	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	N	<0.0005	<0.0005	5	0	3/2023	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	N	<0.0005	<0.0005	7	7	3/2023	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	N	<0.0005	<0.0005	70	70	3/2023	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	N	<0.0005	<0.0005	100	100	3/2023	Discharge from industrial chemical factories

Dichloromethane (ppb)	N	<0.0005	<0.0005	5	0	3/2023	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	N	<0.0005	<0.0005	5	0	3/2023	Discharge from industrial chemical factories
Ethylbenzene (ppb)	N	<0.0005	<0.0005	700	700	3/2023	Discharge from petroleum refineries
Styrene (ppb)	N	<0.0005	<0.0005	100	100	3/2023	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	N	<0.0005	<0.0005	5	0	3/2023	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	N	<0.0005	<0.0005	70	70	3/2023	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	N	<0.0005	<0.0005	200	200	3/2023	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	N	<0.0005	<0.0005	5	3	3/2023	Discharge from industrial chemical factories
Trichloroethylene (ppb)	N	<0.0005	<0.0005	5	0	3/2023	Discharge from metal degreasing sites and other factories
Toluene (ppm)	N	<0.0005	<0.0005	1	1	3/2023	Discharge from petroleum factories
Vinyl Chloride (ppb)	N	<0.0003	<0.0003	2	0	3/2023	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	N	<0.0005	<0.0005	10	10	3/2023	Discharge from petroleum or chemical factories

### Water Quality Table - Unregulated Contaminant Monitoring

Your drinking water was sampled for the presence and concentration of 29 different per- and polyfluoroalkyl substances, some known by the acronyms PFAS, PFOA, PFNA, PFHxS, PFBS, and GenX, a group of contaminants in the final stages of becoming regulated by the EPA. PFAS are man-made chemicals that are resistant to heat, water, and oil. They have been used since the 1940s to manufacture various consumer products, including fire-fighting foam and stain resistant, water-resistant, and nonstick items. Many PFAS do not break down easily and can build up in people, animals, and the environment over time. Scientific studies have shown that exposure to certain PFAS can be harmful to people and animals, depending on the level and duration of [exposure](#).

To learn more about this group of chemicals, we encourage you to read the ADEQ-provided “PFAS 101 Fact Sheet” and to visit the ADEQ website at <https://www.azdeq.gov/pfas-resources>

Per- and Polyfluoroalkyl Substances	Highest Level Detected	Range of All Samples	Proposed MCL
PFHXS	3.73 ppt	2.61-3.73 ppt	N/A
PFBS	156 ppt	105-156 ppt	N/A
Calculated Hazard Index (HI) 533	0.45	0.05-0.45	1 (no units)
Calculated Hazard Index (HI) 537	0.47	0.05-0.47	1 (no units)

### Violation Summary (for MCL, MRDL, AL, TT, or Monitoring & Reporting Requirement)

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
None			

Please share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.