



## 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	
AZ04-03013		Kachina Village Domestic Water Improvement District	
Contact Name and Title		Phone Number	E-mail Address
Sam Mossman – Utility Director		928-525-1775	smossman@kachinawater.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>Sam Mossman</u> at <u>928-525-1775</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):

Your water comes from an underground aquifer perched approximately between 650 to 850 feet below ground at wells 1, 2, and 3. Well 4 is at 850 to 1100 feet of depth. The aquifer is in the Coconino Sandstone, and hence called the Coconino Aquifer. We are fortunate enough to have a very reliable water source, continued maintenance and upgrades to keep us from having water restrictions in the warmest months. The only treatment for our water is hypochlorination at all our wells and sand separation at one well.

### 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 call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

## 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)

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

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. Kachina Village Improvement District 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

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	.56	.45-.71	4	4	1/2023-12/2023	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
Haloacetic Acids (HAA5) (ppb)	N	<.0020	<.0020	60	N/A	7/2023	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N	<.0005	<.0005	80	N/A	7/2023	Byproduct of drinking water disinfection
Lead & Copper	MCL Violation Y or N	90 <sup>th</sup> Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	N	0.13	0	1.3	1.3		Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	<0.005	0	15	0		Corrosion of household plumbing systems; erosion of natural deposits
Inorganic Chemicals (IOC)	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
Nitrate <sup>2</sup> (ppm)	N	1.1	.22-1.1	10	10	3/2023	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

<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.

## Water Quality Table – Unregulated Contaminants

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
PFOA (in parts per trillion)	<4.00	<1.89-<4.00	4.0 ppt
PFOS (in parts per trillion)	<4.00	<1.89-<4.00	4.0 ppt
PFNA (in parts per trillion)	<4.00	<1.89-<4.00	N/A*
PFHxS (in parts per trillion)	<4.00	<1.89-<4.00	N/A*
PFBS (in parts per trillion)	<4.00	<1.89-<4.00	N/A*
GenX (in parts per trillion)	<4.00	<1.89-<4.00	N/A*
Calculated Hazard Index (HI)	N/A		N/A*

\* EPA is proposing a Hazard Index MCL to limit any mixture containing one or more of PFNA, PFHxS, PFBS, and/or GenX Chemicals. The Hazard Index considers the different toxicities of PFNA, GenX Chemicals, PFHxS, and PFBS. For these PFAS, water systems would use a hazard index calculation to determine if the combined levels of these PFAS in the drinking water at that system pose a potential risk and require action (Source: EPA Fact Sheet: Understanding the PFAS National Primary Drinking Water Proposal Hazard Index).

**Water Quality Table - Unregulated Contaminant Monitoring Rule (Required Reporting)**

<b>Twenty-nine Per- and Polyfluoroalkyl Substances (In parts per trillion)</b>	<b>Detected (Y/N)</b>	<b>Average of Results (ppt)</b>	<b>Range of All Samples (Low-High)</b>	<b>Minimum Reporting Level (ppt)</b>	<b>Analytical Methods</b>
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	N	<3.48	<1.89-<5.00	5	EPA 533
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	N	<5.00	<5.00	5	EPA 533
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	N	<3.00	<3.00	3	EPA 533
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	N	<5.00	<5.00	5	EPA 533
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	N	<2.48	<1.89-<3.00	3	EPA 533
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	N	<1.98	<1.89-<2.00	2	EPA 533
hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	N	<3.48	<1.89-<5.00	5	EPA 533
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	N	<20	<20	20	EPA 533
Perfluoro-3-methoxypropanoic acid (PFMPA)	N	<4.00	<4.00	3	EPA 533
Perfluoro-4-methoxybutanoic acid (PFMBA)	N	<3.00	<3.00	4	EPA 533
Perfluorobutanesulfonic acid (PFBS)	N	<2.48	<1.89-<3.00	3	EPA 533
Perfluorobutanoic acid (PFBA)	N	<5.00	<5.00	5	EPA 533
Perfluorodecanoic acid (PFDA)	N	<2.48	<1.89-<3.00	3	EPA 533
Perfluorododecanoic acid (PFDoA)	N	<2.48	<1.89-<3.00	3	EPA 533
Perfluoroheptanesulfonic acid (PFHpS)	N	<3.00	<3.00	3	EPA 533
Perfluoroheptanoic acid (PFHpA)	N	<2.48	<2.00-<3.00	3	EPA 533
Perfluorohexanesulfonic acid (PFHxS)	N	<2.14	<1.89-<3.00	3	EPA 533
Perfluorohexanoic acid (PFHxA)	N	<2.48	<1.89-<3.00	3	EPA 533
Perfluorononanoic acid (PFNA)	N	<2.98	<1.89-<4.00	4	EPA 533
Perfluorooctanesulfonic acid (PFOS)	N	<2.98	<1.89-<4.00	4	EPA 533
Perfluorooctanoic acid (PFOA)	N	<2.98	<1.89-<4.00	4	EPA 533
Perfluoropentanesulfonic acid (PFPeS)	N	<4.00	<4.00	4	EPA 533
Perfluoropentanoic acid (PFPeA)	N	<3.00	<3.00	3	EPA 533
Perfluoroundecanoic acid (PFUnA)	N	<2.00	<2.00	2	EPA 533
n-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	N	<1.96	<1.89-<2.00	5	EPA 537.1
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	N	<1.96	<1.89-<2.00	6	EPA 537.1
Perfluorotetradecanoic acid (PFTA)	N	<1.96	<1.89-<2.00	8	EPA 537.1
Perfluorotridecanoic acid (PFTTrDA)	N	<1.96	<1.89-<2.00	7	EPA 537.1

Unless otherwise noted, the data presented in these tables is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	4/6/21	2.8	0 - 2.8	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	4/6/21	0.3	0.053 – 0.3	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	4/6/21	1.8	1.5 – 1.8	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	4/6/21	0.088	0.068 – 0.088	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth, Discharge from fertilizer and aluminum factories.

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

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
No Violations Occurred			
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.			