Consumer Confidence Report for Calendar Year 2023

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

Public Water System ID Number	Public Water System Name		
AZ04-13034	Highland Pines DWID		
Contact Name and Title		**Phone Number**	**E-mail Address**
James C. Muylle/Operations Manager		928-713-9397	jmuylle@fannenvironmental.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 Angelo Angelieri at 928-227-7690 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):	City of Prescott Ground Water Wells.

Consecutive Connection Sources

A public water system that receives some or all of its finished water from one or more wholesale systems by means of a direct connection or through the distribution system of one or more consecutive systems. Systems that purchase water from another system report regulated contaminants detected from the source water supply in a separate table.

PWS # AZ04-13045 provides us a consecutive connection source of water.

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

City of Prescott ground water wells. Chlorination before storage, and delivery to the distribution system.
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. The City of Prescott 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.

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	0	0	0	Human and animal fecal waste
Fecal Indicator (coliphage, enterococci and/or E. coli)				0	0	Human and animal fecal waste

Surface Water Treatment Rule	TT Violation Y or N	Highest Level Detected	% Range (Low-High)	TT	Sample Month & Year	Likely Source of Contamination
Total Organic Carbon[1] (mg/L)				TT		Naturally Present in the Environment
Turbidity[2] (NTU)				TT		Soil runoff

[1] **Total organic carbon (TOC)** has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THM) and haloacetic acids (HAA). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

[2] **Turbidity** is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. We monitor it because it is a good indicator of the quality of water. High turbidity can hinder the effectiveness of disinfectants. 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.

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	0.6	0.6-0.6	4	4	2023	Water additive used to control microbes
Chlorine dioxide (ppb)				800	0		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	5	4.7-4.7	60	N/A	2023	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N	38	38.3-38.3	80	N/A	2023	Byproduct of drinking water disinfection
Bromate (ppb) *if treated with Ozone*				10	0		Byproduct of drinking water disinfection
Chlorite (ppm) *if treated with CLO2*				1	0.8		Byproduct of drinking water disinfection

Lead & Copper	MCL Violation Y or N	90th Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	N	0.14	0	1.3	1.3	2023	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	0	0	15	0	2023	Corrosion of household plumbing systems; erosion of natural deposits

Radionuclides	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
Beta/Photon Emitters (mrem/yr.)				4	0		Decay of natural and man-made deposits
Alpha Emitters (pCi/L) *(This is Gross Alpha 4000)*	N	2.9	2.9	15	0	2023	Erosion of natural deposits
Combined Radium-226 & -228 (pCi/L)	N	<0.6	<0.6	5	0	2023	Erosion of natural deposits
Uranium (ug/L)				30	0		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
Antimony (ppb)	N	0.8	ND-0.8	6	6	2022	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic[1] (ppb)	N	10	2.7-10.0	10	0	2023	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)				7	7		Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	N	0.036	ND-0.036	2	2	2022	Discharge of drilling wastes; discharge from metal

Contaminant							Major Sources in Drinking Water
							refineries; Erosion of natural deposits
Beryllium (ppb)				4	4		Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)				5	5		Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)				100	100		Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)				200	200		Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	N	0.29	ND-0.29	4	4	2022	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)				2	2		Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
Nitrate[2] (ppm)	N	1.87	1.05-1.87	10	10	2023	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)				1	1		Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)				50	50		Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	N	14	14	N/A	N/A	2022	Erosion of natural deposits
Thallium (ppb)				2	0.5		Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

[1] **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.

[2] **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.

				MCL	MCLG		Likely Source of Contamination
Methoxychlor (ppb)				40	40		Runoff/leaching from insecticide used on fruits, vegetables, alfalfa,
Oxamyl (a.k.a. Vydate) (ppb)				200	200		Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)				500	0		Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)				1	0		Discharge from wood preserving factories
Picloram (ppb)				500	500		Herbicide runoff
Simazine (ppb)				4	4		Herbicide runoff
Toxaphene (ppb)				3	0		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)				5	0		Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)				5	0		Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)				100	100		Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)				600	600		Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)				75	75		Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)				5	0		Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)				7	7		Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)				70	70		Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)				100	100		Discharge from industrial chemical factories
Dichloromethane (ppb)				5	0		Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)				5	0		Discharge from industrial chemical factories
Ethylbenzene (ppb)				700	700		Discharge from petroleum refineries
Styrene (ppb)				100	100		Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)				5	0		Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)				70	70		Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)				200	200		Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)				5	3		Discharge from industrial chemical factories
Trichloroethylene (ppb)				5	0		Discharge from metal degreasing sites and other factories
Toluene (ppm)				1	1		Discharge from petroleum factories
Vinyl Chloride (ppb)				2	0		Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)				10	10		Discharge from petroleum or chemical factories

Water Quality Table – Unregulated Contaminants *(Applies to Water Systems that were tested for the PFAS group of contaminants in the year of the CCR, delete section if does not apply)* if the contaminants were detected at any level, please fill out the data table below and include the ADEQ "PFAS 101" Fact Sheet with your CCR.

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)	10	ND 10	4.0 ppt
PFOS (in parts per trillion)	9	8 - 9	4.0 ppt
PFNA (in parts per trillion)	Not Detected	Not Detected	N/A*
PFHxS (in parts per trillion)	7	3 - 7	N/A*
PFBS (in parts per trillion)	7	3 - 7	N/A*
GenX (in parts per trillion)	Not Detected	Not Detected	N/A*
Calculated Hazard Index (HI)			1 (no units)

* 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)

Twenty-nine Per- and Polyfluoroalkyl Substances (In parts per trillion)	Detected (Y/N)	Average of Results (ppt)	Range of All Samples (Low-High)	Minimum Reporting Level (ppt)	Analytical Methods
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)				5	EPA 533
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)				5	EPA 533
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)				3	EPA 533
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)				5	EPA 533
4,8-dioxa-3H-perfluorononanoic acid (ADONA)				3	EPA 533
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)				2	EPA 533
hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)				5	EPA 533
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)				20	EPA 533
Perfluoro-3-methoxypropanoic acid (PFMPA)				3	EPA 533
Perfluoro-4-methoxybutanoic acid (PFMBA)				4	EPA 533
Perfluorobutanesulfonic acid (PFBS)				3	EPA 533
Perfluorobutanoic acid (PFBA)				5	EPA 533
Perfluorodecanoic acid (PFDA)				3	EPA 533
Perfluorododecanoic acid (PFDoA)				3	EPA 533
Perfluoroheptanesulfonic acid (PFHpS)				3	EPA 533
Perfluoroheptanoic acid (PFHpA)				3	EPA 533
Perfluorohexanesulfonic acid (PFHxS)				3	EPA 533
Perfluorohexanoic acid (PFHxA)				3	EPA 533

	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL (ppb)	Analytical Methods
Perfluorononanoic acid (PFNA)				4	EPA 533
Perfluorooctanesulfonic acid (PFOS)				4	EPA 533
Perfluorooctanoic acid (PFOA)				4	EPA 533
Perfluoropentanesulfonic acid (PFPeS)				4	EPA 533
Perfluoropentanoic acid (PFPeA)				3	EPA 533
Perfluoroundecanoic acid (PFUnA)				2	EPA 533
n-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)				5	EPA 537.1
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)				6	EPA 537.1
Perfluorotetradecanoic acid (PFTA)				8	EPA 537.1
Perfluorotridecanoic acid (PFTrDA)				7	EPA 537.1
One Metal	**Detected (Y/N)**	**Average**	**Range of All Samples (Low-High)**	**MRL (ppb)**	**Analytical Methods**
Lithium (ppb)				9 µg/L	EPA 200.7, SM 3120 B, ASTM D1976–20

Surface Water Monitoring & Violations *(Applies to Surface Water Systems Only, please delete section if does not apply)*

Cryptosporidium was detected in the finished water or source water. We detected *Cryptosporidium* in **<Detected Number of Samples this year>** of our **<Number of Samples Taken this year>** samples tested. If *Cryptosporidium* is found at greater than 0.075 oocyst per liter, we have to provide additional treatment. We believe it is important for you to know that *Cryptosporidium* may cause serious illness in 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. These people should seek advice from their health care providers.

Health Effects Language:
Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

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

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
Monitoring Routine DBP	Failed to sample within the required time period.	20 Days	Sampled 20 days later.

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.

Assessments for the Revised Total Coliform Rule (RTCR

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. If coliform is found, then the system is responsible to look for potential problems in water treatment or distribution. When this occurs, the water system is required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

- During the past year, we were required to conduct **[#]** Level 1 assessment(s). **[#]** Level 1 assessment(s) were completed. In addition, we were required to take **[#]** corrective actions and we completed **[#]** of these actions.
- During the past year, we were required to conduct **[#]** Level 2 assessment(s). **[#]** Level 2 assessment(s) were completed. In addition, we were required to take **[#]** corrective actions and we completed **[#]** of these actions.

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. If *E. coli* bacteria is found, the water system is required to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

- During the past year, we were required to complete **[#]** Level 2 assessment(s) because we found *E. coli* in our water system. In addition, we were required to take **[#]** corrective actions and we completed **[#]** of these actions.

Failure to Conduct Assessments for the Revised Total Coliform Rule

Contaminant Name	TT Violation Y or N	TT Requirement
Total Coliform		We were required to conduct an assessment of our system due to one of the following: ● More than 5.0% positive samples per period (if the number of samples are greater than or equal to 40) ● OR More than 1 positive sample per period (if the number of samples are less than 40) ● OR Repeat samples not collected after positive sample.

- "During the past year, we failed to conduct all of the required assessment(s)."
- "During the past year, we failed to correct all sanitary defects that were identified during the assessment that we conducted."

Our reason for Non-Compliance with the MCL is that…

- "We had an *E. Coli*-positive repeat sample following a total coliform-positive routine sample."
- "We had a Total Coliform-positive repeat sample following an *E. coli*-positive routine sample."
- "We failed to take all required repeat samples following an *E. coli*-positive routine sample."
- "We failed to test for *E. coli* when any repeat sample tests positive for total coliform."