



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		
AZ04-12-006	Town of Patagonia		
Contact Name and Title	Phone Number	E-mail Address	
George Deithorn	520-604-0510	PWTREAT@QWESTOFFICE.net	
<p>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 Townhall at 520-394-2229 for additional opportunity and meeting dates and times.</p>			

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 pick up 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):	Two groundwater wells in the Sonoita Creek Watershed
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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) 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. **Town of Patagonia** 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.

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

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
MRDL Reporting	Submitted Chlorine residuals late	1/1 – 3/31/2023	Subsequent sampling was reported on time.

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.

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	NA	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	0.23	0.17 – 0.29	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
Halo acetic Acids (HAA5) (ppb)	N	ND	ND	60	N/A	7/2023	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N	5.1	2.2 - 8	80	N/A	7/2023	Byproduct of drinking water disinfection
Lead & Copper	MCL Violation Y or N	90 th Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	N	0.37	0	1.3	1.3	7/2022	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	ND	0	15	0	7/2022	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
Arsenic ¹ (ppb)	N	2.2	NA	10	0	5/2022	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	N	0.028	NA	2	2	5/2022	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	N	0.4	NA	4	4	5/2022	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate ² (ppm)	N	1.5	1.4 - 1.6	10	10	5/2023	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	20	15-20	N/A	N/A	5/2022	Erosion of natural deposits

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.

All contaminants listed below were tested for and were NOT found in our water. These contaminants are considered Non-Detect or not present:

Radionuclides (Last tested 11/2019): Gross alpha, Combined radium, Radium-226, Radium-228

Inorganic Contaminants (Last tested 5/2022): Antimony, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Nickel, Nitrite, Selenium, and Thallium

Synthetic Organic Compounds (Last tested 5/2022): 2,4-D, 2,4,5-TP (a.k.a. Silvex), Acrylamide, Alachlor, Atrazine, Benzo (a) pyrene (PAH), Carbofuran, Chlordane, Dalapon, Di (2-ethylhexyl) adipate, Di (2-ethylhexyl) phthalate, Dibromochloropropane, Dinoseb, Diquat, Dioxin [a.k.a. 2,3,7,8-TCDD], Endothall, Endrin, Epichlorohydrin, Ethylene dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl (a.k.a. Vydate), PCBs [Polychlorinated biphenyls], Pentachlorophenol, Picloram, Simazine, Toxaphene

Volatile Organic Compounds (Last tested 5/2022): Benzene, Carbon tetrachloride, Chlorobenzene, o-Dichlorobenzene, p-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Styrene, Tetrachloroethylene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Toluene, Vinyl Chloride, Xylenes

Water Quality Table – Unregulated Contaminants

Your drinking water was also 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's "PFAS 101 Fact Sheet" and to visit the ADEQ website at <https://www.azdeq.gov/pfas-resources>

* 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).

The following contaminants were tested for September, 2023 and **were not detected in the water:**

11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS), 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS), 1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS), 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS), 4,8-dioxa-3H-perfluorononanoic acid (ADONA), 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS), hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX), nonafluoro-3,6-dioxaheptanoic acid (NFDHA), Perfluoro-3-methoxypropanoic acid (PFMPA), Perfluoro-4-methoxybutanoic acid (PFMBA), Perfluorobutanesulfonic acid (PFBS), Perfluorobutanoic acid (PFBA), Perfluorodecanoic acid (PFDA), Perfluorododecanoic acid (PFDoA), Perfluoroheptanesulfonic acid (PFHpS), Perfluoroheptanoic acid (PFHpA), Perfluorohexanesulfonic acid (PFHxS), Perfluorohexanoic acid (PFHxA), Perfluorononanoic acid (PFNA), Perfluorooctanesulfonic acid (PFOS), Perfluorooctanoic acid (PFOA), Perfluoropentanesulfonic acid (PFPeS), Perfluoropentanoic acid (PFPeA), Perfluoroundecanoic acid (PFUnA), n-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA), n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA), Perfluorotetradecanoic acid (PFTA) and Perfluorotridecanoic acid (PFTTrDA).