

PUEBLO OF ZUNI



Zuni Water System 2021 Water Quality Report (Provided by Zuni Utility Department) (Issued June 2022 - PWS 063501124)

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Zuni Water Department vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Do I need to take special precautions?

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. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by (Cryptosporidium) and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

The water for the Zuni Utility Department Water System comes from 2-wells (OJO North Well & OJO South Well) that are both about 700 feet deep and are located near Ojo Caliente. The wells draw water from the Glorietta Sandstone/San Andres Limestone aquifer. The water is piped over 10 miles to where it is treated prior to going out to the distribution system.

Source water assessment and its availability

The 1996 amendments to the Safe Drinking Water Act authorize a Source Water Assessment Program to determine the susceptibility of a public drinking water supply to contamination. Source of contaminants regulated by the Safe Drinking Water Act are required to be inventoried during the assessment process. The EPA region 6 Source Water Protection Branch in cooperation with Division of Resource Management and Protection conducted this assessment in November of 2005.

Based on the following factors, your water system was determined to have a low susceptibility to contamination. The physical integrity of the well, the characteristics of the hydrologic system around the well, the characteristics of the contaminants inventoried and the likelihood of those contaminants to reach the source of the drinking water supply all impact the susceptibility of the source to contamination.

Additionally, the Pueblo is actively working with the New Mexico Rural Water Association to complete a draft source water protection plan.

Why are there contaminants in my drinking water?

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, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which 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, USEPA prescribe regulations that limit the number of certain contaminants in water provided by public water systems.

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. The Zuni Utility Department is responsible for providing high quality 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.

Additional Information for Arsenic

While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. 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.

Description of Water Treatment Process

The Zuni Utility Department uses gas Chlorination to treat its water source. Gas Chlorine is used to treat the Zuni water source, to combat bacteria that might be present in our water source. Dosage of the chlorine is monitored daily, to make sure that our water system is being disinfected to provide safe drinking water to the community.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers – a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.

- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month
- Use a shower-efficient showerhead. They're inexpensive, easy to install and can save you up to 750 gallons a month.
- Run your clothes washer only when it's full. You can save up to 1000 gallons a month.
- Fix or replace leaky toilets and faucets. Water leaking from these fixtures can add up when it is leaking 24 hours-a-day. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Always remember that water is essential in washing your hands constantly to combat the virus and not to use it for irrigating crops, gardens, lawns, trees and landscaping. It is also not to be used for watering live stocks, washing vehicles, filling swimming pools and washing driveways and streets.
- Teach your kids about water conservation and its importance in using it to protect themselves and others during this trying time.
- If you have access to a computer and want to learn more, visit www.epa.gov/watersense for more information.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminates can, under any flow conditions, enter the distribution system, If you have any of the devices listed below, please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler / Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tubs (whirlpool tubs not included)
- Additional source (s) of water on the property
- Decorative ponds
- Watering troughs

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways. Eliminate excess use of lawn and garden fertilizers and pesticides. They contain hazardous chemicals that can reach your drinking water source. If you have your own septic system, properly maintain your system to reduce leaching to water sources. Dispose of chemicals properly; take used motor oil to a recycling center. Volunteer and organize a project to help in protecting your community's watershed, and always remind household residents, that some storm drains dumps directly into your local water body.

How can I get involved?

Since the **COVID-19 PANDEMIC** is currently impacting our community, it is now more important than ever that we protect our valuable water resources by conserving water usage and reporting broken waterlines immediately. The ever-present possibility of low water pressure conditions calls for an even greater emphasis on the misuse of water for our community. The Zuni Utility Department still has a ban on using water for car washing, watering grass, trees and gardens, and prohibits the use of water for anything else other than domestic use. Notices are posted at all public places and will be reposted from time to time. You can also assist in reporting any type of misuse of water by calling 505-782-5654, and crews will be dispatched out immediately. As community members, you can assist in your community to use the potable water source only for washing your hands constantly, washing clothes, and most importantly, for personal hygiene protection.

Additional Information on COVID-19

The Novel Corona Virus (COVID-19) has not been detected in any drinking water supplies and the risk to water supplies is low. Below are some answers to frequently asked questions:

Is drinking water safe?

Yes, drinking water is safe. Drinking water is obtained from groundwater wells. The water supply, treatment and disinfection systems are designed to continuously deliver safe drinking water to customer taps.

According to the World Health Organization (WHO) and the American Water Works Association (AWWA), current treatment methods are sufficient to disinfect water for contaminants, including COVID-19. Groundwater sources would not be sources for COVID-19 and existing mandated EPA testing throughout our distribution system requires a chlorine residual to ensure water is clean and safe for consumption.

Where can I get additional information?

The World Health Organization has issued a technical brief on COVID-19 March 3 technical brief (<https://www.who.int/publications-detail/water-sanitation-hygiene-and-waste-management-for-covid-19>) on water, sanitation, hygiene and waste management. The brief states that current water treatment methods are expected to be effective against the Novel Coronavirus (COVID-19) and based on current evidence the risk to water supplies is low.

What precautions are at the Pueblo of Zuni Water Department taking?

During the production and sampling of your water, extra pre-cautions have been taken by the water including working with a limited crew, social distancing, and wearing and having on hand all needed Personal Protective Equipment (PPE). Also, extra chlorine sampling to make sure there is proper disinfection in the water to prevent any virus from living or multiplying in the water.

Other Information

As many of the community members are already aware, Zuni Pueblo switched to using new wells and a new treatment plant at the end of 2002. Since then there have been concerns expressed regarding hardness in the water. The water from the new wells does indicate that a considerable amount of hardness is present in the water. Typically, the hardness will accumulate in the form of a white buildup or will be seen when water is brought to a boil. Hardness is something that is not a health concern. The Zuni Utility Department is examining options to address the issue of hardness in our community's water.

Currently the Pueblo of Zuni is in the process of making the Zuni Utility Department a separate enterprise. We are in the beginning stages of creating several aspects to meet the criteria to become the Zuni Tribal Utility Authority, Inc. (ZTUA). Once this is accomplished, we will take on the solicitation for community members, business owners and professional individuals who are interested in serving on the Zuni Water Board Committee. Please let us know if you are interested.

2021 Water Quality Data Tables

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Detected Regulated Contaminants

Contaminants	MCLG	AL	Highest Detected in Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants (Lead and Copper)							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.14	2020	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	2	2020	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Highest Detected in Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	1	0.6	1	2021	No	Water additive used to control microbes
TTHMs [Total Trihalomethanes] (ppb)	No goal for Total	80	3.61	1.51	3.61	2021	No*	By-product of drinking water disinfection
Total Haloacetic Acids (HAA5)	No goal for Total	60	ND	ND	ND	2021	No	
Inorganic Contaminants								
Arsenic (ppb)	0	10	12	12	12	2021	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Radioactive Contaminants								

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Highest Detected in Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Beta/photon emitters (pCi/L)	0	50	5.48	5.48	5.48	09/26/2018	No	Decay of natural and man-made deposits. The EPA considers 4 pCi/L to be the level of concern for Beta particles.
Uranium (ug/L)	0	30	2.2	2.2	2.2	09/26/2018	No	Erosion of natural and man-made deposits

*Arsenic – While your drinking water meets EPA Standards, it does contain low levels of arsenic. EPA 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 effect 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. The water system is on a quarterly monitoring as of the 4th Quarter of 2021, and the Running Annual Average (RAA) did not exceed the MCL in 2021. After 4 quarters of quarterly monitoring, the EPA will calculate the RAA and determine compliance with the arsenic MCL.

Unit Descriptions	
Term	Definition
ug/L	Number of micrograms of substance in one liter of water or one ounce in 7,350, 000 gallons of water.
ppm	Parts per million, or milligrams per liter (mg/L), - or one ounce in 7, 350 gallons of water.
ppb	Parts per billion, or micrograms per liter (µg/L)
pCi/L	Picocuries per liter (a measure of radioactivity)
NA	Not applicable
ND	Not detected
NR	Monitoring not required but recommended.
Important Drinking Water Definitions	
Term	Definition
MCLG	Maximum Contaminant Level Goal: 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.
MCL	Maximum Contaminant Level: 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.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
ALG	Action Level Goal: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	Maximum residual disinfection level goal. 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.
MRDL	Maximum residual disinfectant level. 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.

Unit Descriptions	
MNR	Monitored Not Regulated
MPL	State Assigned Maximum Permissible Level
AVG	Regulatory compliance with some MCL's are based on running average of monthly samples
mrem	Millirems per year (a measure of radiation absorbed by the body)
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment:	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an <i>E.coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

For more information, please contact:

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