PUEBLO OF ZUNI

Zuni Water System
2010 Water Quality Report
(Provided by Zuni Utility Department)
(Issued June 2011 - 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 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, authorizes a Source Water Assessment Program to determine the susceptibility of a public drinking water supply to contamination. Sources 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 the Division of Resource Management and Protection conducted the field portion of this assessment in September of 2005. In September of 2006, a completed Source Water Assessment for The Pueblo of Zuni was provided along with an Addendum to the report dated January 2001. This completed assessment can now be used by the Zuni Pueblo to expand its ongoing Source Water Protection program and as a resource document. Copies are available at the Zuni Utility Department offices located at Bldg. 143, Route 301 South.

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 stormwater 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 stormwater 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 stormwater 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 amount 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 on Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

How can I get involved?

You can assist the Zuni Utility Department and the community in protecting our valuable water resources by conserving water usage and reporting broken waterlines immediately. You can also attend scheduled Tribal Council General Meetings to provide your input on water related issues. Notices will be posted for the meetings. We are in the process of soliciting for community members, business owners and professional individuals who are interested in serving on the Zuni Water Board Committee. Please give us a call @ 782-5654 if interested.

Other Information

As many of the community 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.

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 arsenics 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.

Zuni Water Quality Data Table

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.

Inorganic Contaminants								
			Your	Range		Sample		
Contaminants	MCLG	MCL	Water	Low	High	Date	Violation	Typical Source
Arsenic (ppb)*	NA	10	8	7.7	8.5	2009	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Chromium (ppb)	100	100	8.63	8.63	8.63	2007	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride (ppm)	4	4	.585	.585	.585	2007	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

Radioactive Contaminants								
			Your	Range		Sample		
Contaminants	MCLG	MCL	Water	Low	High	Date	Violation	Typical Source
Alpha emitters (pCi/L)	0	15	.823	0	.823	2007	No	Erosion of natural and man-made deposits
Beta/photon emitters (pCi/L)	0	50	6.46	6.46	6.46	2007	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Uranium (ug/L)	0	30	1.89	1.89	1.89	2007	No	Erosion of natural and man-made deposits
Combined Radium 226/228 (pCi/L)	0	5	.287	.287	.287	2007	No	Erosion of natural deposits

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.34	2008	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Unit Descriptions	
Term	**Definition**
ug/L	ug/L : Number of micrograms of substance in one liter of water
mrem/yr	mrem/yr: millirem per year (a measure of radioactivity)
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive
NA	NA: not applicable
ND	ND: Not detected

Important Drinking Water Definitions

Term	Definition
MCLG	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	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.
AL	AL: Action Level: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
ALG	ALG: Action Level Goal: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

For more information please contact:

Strallie Edaakie Sr.
Manager, Zuni Utility Department
Mailing Address: Box 339
Zuni, NM 87327
Physical Address: Bldg. 143 Route 301 South
Office Phone Number: 505-782-5654
Fax Number: 505-782-4834
E-mail Address: sedaak@ashiwi.org

This report was created with assistance from the New Mexico Environmental Finance Center at
New Mexico Tech, under EPA Purchase Order EP096000201