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PUEBLO OF ACOMA
WATER & WASTEWATER DEPARTMENT

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2019 DRINKING WATER QUALITY REPORT

Acoma Main Public Water System #063501001
Reporting Period 01/01/19 – 12/31/19 (Issued June 2020)

IS MY WATER SAFE?

We are pleased to present this year's Annual Water Quality CCR (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). Last year, 2019, the water coming out of your tap met all U.S. Environmental Protection Agency (EPA) and Pueblo of Acoma water quality standards. This report is intended to provide you with important information about your drinking water and the efforts made by the Acoma Water &



Wastewater Department to provide safe drinking water. This report also provides a snapshot of last year's water quality and is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by the U.S. EPA and the Acoma EPA. We would also like to state that our Department has taken extra precaution during this time to protect the Acoma resources and the public water system from exposure to COVID-19 by adhering to Center for Disease Control (CDC) and local guidelines to prevent the spread of COVID-19 which includes frequent disinfection, personnel protective equipment, social distancing and other precautions. The chlorine that is and has always been added to the public drinking water is also a very effective disinfectant against COVID-19 and other viruses.

WHERE DOES MY WATER COME FROM?

The Pueblo of Acoma drinking water supply is pumped from groundwater sources in the sandstone aquifers located in the Anzac area.

In 2019, ground water wells (Anzac #3, #4, #5, #6 and #8) supplied approximately 106,000,000 gallons of potable water. This is a reduction of 4,000,000 gallons of potable water from 2018. This is a result of water leaks found and repaired within the distribution system and your conservation efforts. This water that we pump from the ground is treated with Chlorine disinfection and placed into the distribution system for potable water use. Chlorine is added to the water to safeguard against harmful bacteria such as fecal coliform and e-coli. Since the beginning of 2013 an additive called “SeaQuest” has also been used for the potable water. This additive helps control the brown dis-coloration you see in the drinking water. Many have asked why the water is brown. The answer lies below us. As we pump water from the aquifers in the Anzac area, the surrounding soils are rich in iron and manganese which is dissolved by the water, so when we pump the water out of the aquifer, the iron and manganese, which are predominately dark red/brown color, precipitates out and gives the unpleasant brown color to the drinking water at times, especially when there is a water break. This SeaQuest additive we are using helps reverse this process which keeps the water clear. This new additive has made significant improvements to the occasional water discoloration as our complaints have gone down significantly from years past. In addition the new well, Anzac #8, has the best quality of water of all the wells and it is now producing a majority of the water for the community. However, if you are experiencing discolored water or any water quality issues please don't wait, call us. We depend on you to let us know if you have an issue!

In 2013, along with the use of the SeaQuest additive, we started a routine fire hydrant maintenance program. This includes the opening and closing of every hydrant within the Pueblo twice a year. This ensures that the fire hydrants are working properly and also allows us to “flush” out the iron and manganese that may be built up in the lines, especially those lines that have dead ends. This preventative maintenance program helps our existing equipment last longer and ultimately means less costs that are passed on to the customer.

SOURCE WATER ASSESSMENT AND ITS AVAILABILITY.

As mentioned, the Pueblo of Acoma drinking water supply is pumped from groundwater sources and treated with chlorination disinfection where it is then placed in the distribution system for the community's potable water uses. In June 2019 the Pueblo of Acoma and the U.S. Environmental Protection Agency conducted a sanitary survey which is a comprehensive evaluation of the source water locations, the pumps, pumping facilities, distribution and storage facilities, management of the water system and operator qualifications of our public water system. The report did identify several items to address with some of the pumphouse and storage facilities. As a result of this report, the Pueblo was able to secure additional federal funding to make these necessary improvements. A majority of these items have been resolved, but there are a few such as replacing the coating inside of the drinking water tanks, replace piping and fittings in the older pump house that have been funded and have not been completed at this time, in part due to COVID-19. None of the deficiencies noted in the report pose an immediate health risk and/or cause for concern. Ongoing testing and compliance with the Safe Drinking Water Act is always being performed.



A source Water Assessment was completed in 2001 by the U.S. EPA for the older wells and an update to this assessment for the newer wells will be completed soon, and we will make the report available to you when ready. There is a well-head protection plan for our source water in Anzac, meaning that no development, ranching, farming or other activities can occur within a certain distance from the source wells. This was set up to protect the drinking water that we all use for our daily lives here within the community. For more information on source water assessment or to view Acoma's Source Water Protection Plan, Multiple Barrier Evaluation and/or the Acoma Water Quality Standards please contact the Pueblo of Acoma Water & Wastewater Department located in the north modular building in the Utility Authority yard or call us at (505) 552-5131.

Starting in 2011 the Acoma Water & Wastewater Department performed tank inspections and cleaning of the four public water storage tanks in operation at that time. We hired Liquid Engineering, a storage tank specialist, to dive into the tanks, clean the inside from sediment and other debris and perform a comprehensive assessment of the structural integrity of the tank and also of the interior coating. This was again performed in 2014 and in 2019 we have received funding to drain, re-coat and repair all of Acoma's water storage tanks bringing them to a like-new condition. EPA requires all tanks to be cleaned every 5 years, but we are committed to providing the best quality water, so we adopted an internal policy of tank cleaning and inspection on a 4 year basis.

WHY ARE THERE CONTAMINANTS IN MY DRINKING WATER?

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. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

Pueblo of Acoma drinking water source comes from groundwater. As water travels over the surface of the land or through the ground it dissolves naturally occurring minerals (in some cases, radioactive materials) 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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from stormwater runoff, industrial, domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides 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 are by-products of industrial processes and petroleum production and can also come from gas stations, storm water runoff, and septic systems.

Radioactive contaminants may be naturally occurring or the result of mining activities. In order to ensure that tap water is safe to drink, U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration (FDA) regulations provide similar protections for bottled water.

DO I NEED TO TAKE SPECIAL PRECAUTION?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have received organ transplants, those 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 Drinking Water Hotline (800-426-4791).

ADDITIONAL INFORMATION FOR LEAD?

It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. 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. We cannot control the variety of materials used in home 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 (www.epa.gov/safewater/lead) or you can contact the Acoma Water & Wastewater Department. We will be happy to provide testing information to you to ensure your internal plumbing is safe!



As outlined in the Safe Drinking Water Act, The Pueblo of Acoma samples for lead and copper throughout the community every three years. **All samples collected in the past were below the Action Level (AL) set forth by the U.S. EPA.** In 2019 the Acoma Water & Wastewater Department helped the Acoma Department of Education sample the schools for lead and copper as part of the voluntary monitoring program offered by U.S. EPA. This program is to ensure that the INTERNAL PLUMBING within the school facility is free from lead. Out of the thirty samples collected from the Headstart, all but one came back below safe levels determined by U.S.EPA. Out of the seven samples collected from the Haaku Community Academy, all but one came back below safe levels determined by U.S.EPA. The two samples locations (one from the Headstart and one from the Hakuu Community Academy) that came back with elevated lead results have been removed so that they are not being used and the Department of Education is replacing the internal plumbing/fixtures in those areas to ensure the water is free from lead. If you are concerned about elevated lead levels in your home's water, you can flush your tap for 30 seconds to 2 minutes before using tap water. If you are interested in having your home tested, please contact us at (505) 552-5131. Additional information is available from Safe Drinking Water Hotline (800) 426-4791 or contact us.

HOW CAN I GET INVOLVED?

You can help prevent groundwater pollution by taking some simple steps. Failing septic systems pose a contamination risk to the surface and ground water sources located throughout the community. Failing systems are generally caused by a clogged or damaged drainfield. The overwhelming majority of clogged septic systems are from grease and other meat and kitchen products that are washed down the drain. Once these items get into the drainfield, they cannot be removed and prevent the wastewater from filtering into the soil. The other situation we see is that the septic tank lids are missing or damaged allowing water and dirt to enter the system and causing the tank to be filled up with dirt. There is one situation where the entire septic tank has filled with dirt leaving the homeowner no other option but to replace the septic tank and drainfield, which can cost over \$20,000.

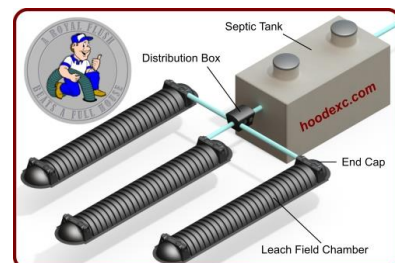
The other way to get involved is by being an extra set of eyes and ears throughout the community. **If you notice a water break, unusual water accumulation, discolored water or unusual activities near the water system facilities please call our office at (505) 552-5131 during working hours or you can**

call the Acoma Public Safety Dispatcher at 505-552-6601/6602 after hours and weekends to report any issues. They will contact us, and we will respond.

Finally, if you are interested in participating in water policy decisions, your participation is welcome at the Utility Authority Board monthly meetings which are held on the second Wednesday of every month at the Water & Wastewater Office starting at 3:00 P.M. or call (505) 552-5131 for more information.

IS YOUR SEPTIC SYSTEM WORKING PROPERLY?

For the past few years, we have been replacing septic systems for Acoma community members through the Indian Health Service (IHS) drainfield replacement program. If your system has failed (backing up to the home on regular basis or running on the ground) and you haven't been provided a system from IHS before, there is a good chance that you will qualify for this program, which is no cost to you, the Acoma community member. Please come to the office to fill out an application and get additional information on applicant criteria and required documentation. Your income amount is not needed, we are only interested in ensuring you and your family has a properly working system!



By ensuring your septic system is working properly, you are doing your part to protect Acoma's surface and ground water sources, which include the Rio San Jose, the traditional irrigation ditch, Acomita Lake, the ground water aquifers and the many natural springs that are around the Pueblo.

PLEASE CONSERVE OUR MOST PRECIOUS RESOURCE **WATER******

Even though you are paying for water service, conservation is very important. We all have a responsibility to ensure there is enough quality water for many generations to come!



Water is New Mexico's and Acoma's most precious natural resource. New Mexico has experienced several consecutive years of drought and meteorologists predict that it will continue. Water conservation is especially important during times of drought. Additionally, and arguably more critical, most aquifers in the state are being depleted. Decreasing water levels in aquifers and surface sources can increase the concentration of minerals and contaminants in the drinking water supply.

The Pueblo of Acoma Utility Authority is committed to providing a safe and consistent supply of water and we ask for your help. Please conserve water whenever possible and consider taking the following steps:

1. Know where your water shutoff/meter is. In the event of an emergency you should have the ability to turn your water off quickly to minimize any damage to your home and belongings. Please let us know and we can assist in locating your shutoff/meter and ensure that it is working properly.
2. Stop leaks and drips. Toilets are the largest water user inside the home. Over time, toilet flappers can decay or minerals can build up on it. It's usually best to replace the whole rubber flapper—a relatively easy, inexpensive do-it-yourself project that pays for itself quickly. We can assist you in determining if you have a leak and can provide recommendations on potential solutions.
3. Check outdoor fixtures (swamp coolers, faucets, etc.) for leaks and repair any leaks. We do not perform any plumbing repairs, but we have a list of local plumbers which can provide service to you.
4. Consider turning the swamp cooler off when away from home.

5. Minimize evaporation by watering during the early morning hours, when temperatures are cooler and winds are lighter. Take your car to the car wash where the water is recycled. Washing your car with the garden hose wastes a tremendous amount of water from our aquifer.
6. Run water only when using it. Turn water off while brushing teeth, shaving, and/or washing counters.
7. Wash only full loads of laundry. Install a water efficient clothes washer (and save up to 16 gallons per load).
8. Take 5 minute showers.
9. Use of drinking water for horses, cattle and other livestock is prohibited. Take care of your livestock by hauling water from the designated locations, such as the Estevan Well where there is no charge.

When upgrading or replacing household fixtures, install low-flow toilets, showerheads, washing machines, and faucets. Please help protect our most valuable resource!

Teach your children about water conservation to ensure a future generation that uses water wisely. Make a family effort to conserve water so that future generations will enjoy the good quality ground water from Acoma's aquifers!

WATER METERS ARE COMING

The Acoma Water & Wastewater Department at the direction of the Acoma Tribal Leadership and the Acoma Utility Authority Board have installed water meters at each location connected to the Public Water System. Water meters are a simple way to quantify the amount of service each customer receives from the Public Water System. Now that the installation is complete, the Utility Authority will perform a rate study to determine the amount of water that each customer uses, and the Pueblo uses as a whole. Then rates will be changed from a flat rate fee as it is today, to a usage-based fee where the more you use, the more the water bill will be. Many of you out there have stressed to us about the unfairness of a flat rate fee and we are committed to responding to your concerns. In addition, we strongly feel that once the meters are installed and the new usage rate is approved, this will have a tremendous effect on conservation of water. Think of all the leaking sinks and toilets there are around the community and how much water and money is "going down the drain". More information will be shared in the coming months. If you have questions or concerns, please come visit us.

WHEN LOOKING AT THE DATA, KEEP THE FOLLOWING IN MIND!

JUST HOW SMALL IS A PART PER MILLION (PPM) OR PART PER BILLION (PPB)?

In one Olympic size swimming pool there is 660,000 gallons
 (To give you a reference the Acoma swimming pool is 100,000 gallons)

1PPM = 2 two-liter bottles in the olympic size pool!



1PPB = 1/2 teaspoon in the olympic size pool



2019 Pueblo of Acoma Water Quality Data Tables

Definitions

The following table contains scientific terms and measures, some of which may require explanation.

Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
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 E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level Goal or MCLG:	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.
Maximum Contaminant Level or MCL:	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.
Maximum residual disinfectant level goal or MRDLG:	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.
Maximum residual disinfectant level or MRDL:	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.
ppb:	Micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
na:	Not applicable.
ppm:	Milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
mrem:	millirems per year (a measure of radiation absorbed by the body)
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.
RAA:	Running Annual Average - an average of multiple samples collected within the period.

Coliform Bacteria

MCLG	Total Coliform MCL	Highest No. of Positive allowed	Fecal Coliform or E.Coli MCL	Total No. of Positive E.Coli or Fecal samples	Violation	Likely Source of Contamination
0	One positive monthly sample	1	0	0	N	Naturally present in the environment, human waste

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	12/12/2017	1.3	1.3	0.19	1	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	12/12/2017	0	15	0.8	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2019	0.9	0.8 - 0.9	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2019	4.44	4.44 - 4.44	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2019	21.7	21.7 - 21.7	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2019	2.3	1.7 - 2.3	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2019	0.05	0.03 - 0.05	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2019	0.35	0.26 - 0.35	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2019	2.2	ND- 2.2	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2019	9.0	7.3 - 9.0	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2019	4.51	1.63 - 4.51	0	50	pCi/L	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2019	1.35	ND- 1.35	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2019	15 Avg	4 - 24.1	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2019	9 avg	2.4 - 12	0	30	ug/l	N	Erosion of natural deposits.

Violations Table

Ground Water Rule			
The Ground Water Rule specifies the appropriate use of disinfection while addressing other components of ground water systems to ensure public health protection.			
Violation Type	Violation Begin	Violation End	Violation Explanation
FAILURE ADDRESS DEFICIENCY (GWR)	09/29/2017	Open	We failed to properly respond to a significant deficiency in our water system.

Violation Explanation:

In 2016, the Pueblo of Acoma underwent a Multiple Barrier Approach/Inspection to determine if the water system is up to the most recent codes and protecting public health. During that inspection there were several significant deficiencies that were identified. Most of deficiencies were corrected but a few remained which included items such as the piping, valves and meters in the older pumphouses in Anzac. We were able to use this report to go after funding from federal sources to renovate all the older pumphouses in Acoma and address all of the other significant deficiencies. As soon as the COVID-19 closures are lifted, the Utility Authority will work with contractors to complete these projects using federal funds.

There is nothing you need to do at this time. You do not need to boil your water or take other actions. We do not know of any contamination and none of our testing has shown disease-causing organisms in the drinking water.

The Water & Wastewater Department has had a long history of no monitoring and/or reporting violations going through 2013, 2014, 2015, 2016 and 2017 **with no violations**. We are fully committed to ensuring the safe and reliable water within our community and are 100% confident of the water quality within the Pueblo of Acoma Main System. Thank you for supporting your Acoma Utility Authority. If you should have any questions about this report or about your Acoma Utilities, please contact us. Daawa e!

For more information regarding this report or other information please contact:

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Pictured from left to right: Kyle Martinez, Tony Jaure, Sharlene Phillips, Jessie Padilla, Jose Antonio Arvind Patel, Lloyd Shutiva and Bernadine Keyope

This data table was created by the
Pueblo of Acoma Utility Authority
Water & Wastewater Department
with assistance from the
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at the University of New Mexico