



## Graham County Electric Cooperative, Inc.

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### Pima Community Water System System #AZ0405002 Annual Drinking Water Quality Report For 2022

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide to you a safe and dependable supply of drinking water. Ground water is the source from which our water comes. Based on the information currently available on the hydro geological 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 Arizona Department of Environmental Quality has given us 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. We have 16 wells that we draw from. The well field is located approximately 5 miles south west of Pima, at the end of Cottonwood Wash road. The aquifer that the water comes from consists of fine sand and gravel. The water is pumped into a 10" PVC line, chlorinated, and then flows into one of our 5 storage tanks. When added together there is approximately 1,500,000 gallons of water storage for the Pima/Central community.

#### TEST RESULTS

Contaminant	Violation Y/N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples	MCLG	MCL	Likely Source of Contamination	Date Tested
Gross Alpha (pCi/L)	N	ND	ND	0	15	Erosion of natural deposits	August 2018
Combined Radium (pCi/L)	N	ND	ND		5	Erosion of natural deposits	August 2018
Arsenic (ppb)	N	2	2	10	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	April 2021
Fluoride (ppm)	N	.82	.82	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	April 2021
TTHM (ppb) (Total Trihalomethanes)	N	6.5	6.5	N/A	80	By-products of drinking water chlorination	Sept. 2022
HAA5 (ppb) (Haloacetic Acids)	N	ND	ND	N/A	60	By-product of drinking water chlorination	Sept. 2022
Copper (ppm)	N	90 <sup>th</sup> percentile =.0094	.0056-.039	10	10	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Sept 2022
Lead (ppb)	N	90 <sup>th</sup> percentile =ND	ND	15	15	Corrosion of household plumbing systems, erosion of natural deposits	Sept 2021
Bromoform (ppm)	N	.0055	.0055	N/A	.1	Runoff from fertilizer use; leaching from Septic tanks; sewage; erosion of natural deposits	Sept 2022

Nitrate (ppm)	N	.05	.05	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	Oct. 2022
Barium (ppm)	N	.003	.003	2	2	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits	April 2021
Sodium	N	98	98	3000	3000	Erosion of natural deposits	April 2021
Chromium(ppb)	N	1.1	1.1	100	100	Discharge from steel and pulp mills; erosion of natural deposits	April 2021
Chlorine (ppm)	Y	.30	.05-.44	n/a	4	Water additive used to control microbes	Monthly 2022

We did have one violation in 2022 and this was not taking enough Maximum Residual Disinfectant Level Samples in January. This Violation was returned to compliance when the next set of MRDL results came in completed.

Graham County Electric Cooperative routinely monitors constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2022. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. Graham County Electric Cooperative is pleased to report that our drinking water is safe and meets Federal and State requirements.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions: **Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000. **Parts per billion (ppb) or Micrograms per liter** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000. **Picocuries per liter (pCi/L)** - Picocuries per liter is a measure of the radioactivity in water. **Action Level or "AL"** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **Maximum Contaminant Level or "MCL"** is 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 Contamination Level Goal or "MCLG"** means 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 residual disinfectant level or "MRDL"** means 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.

Graham County Electric Cooperative sampled its water sources for Synthetic Organic Contaminants in 2018, Volatile Organic Contaminants in 2018, and Inorganic Contaminants in 2020. These are the most current test results, and were done in compliance with current regulations.

The sources of drinking water (both tap water and bottle 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 animal or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which 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 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, which 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, EPA prescribes regulations, which limit the number of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost 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. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 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 you should ask advice from your health care provider.

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. Graham County Electric Cooperative 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. If you are concerned about lead in your water, or 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](http://www.epa.gov/safewater/lead).

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. We meet the current MCL level for arsenic set by EPA.

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe at these levels.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We at Graham County Electric Cooperative work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. We take pride in serving our customers and their water demand needs.

If you have any questions about this report or concerning your water utility, please contact Ethan Estes at 485-8667 or Rusty Sherman 485-8653. We want our valued customers to be informed about their water utility. If you would like, please attend any of our regularly scheduled board meetings. They are held on the first Wednesday of every month. Please call for the time and to make an appointment if you would like to attend.