2019 Water Quality Report

Public Water System Name: FARMERS WATER CO.
Public Water System Numbers: AZ04-10048, AZ04-10049, AZ04-10213, AZ04-10414
Water Quality Reports: https://www.farmerswaterco.com/waterqualityreport/

To You, Our Valued Customers

Farmers Water Co. is pleased to present our Water Quality Report for the year 2019, also known as the Consumer Confidence Report (CCR). We want our valued customers, to be informed about their water quality. This report contains important information about the quality of the water we deliver to your tap. We are committed to providing you with a safe and reliable supply of drinking water.

Please contact Melodee Loyer, or Jack Miller at **Farmers Water Co. at 520-879-7474** or visit our website at **www.farmerswaterco.com** to learn more about what you can do to help protect your drinking water sources, any questions about the CCR, or to attend a scheduled public meeting.

General Information About 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.

To ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) prescribes enforceable regulations that limit the levels of certain contaminants allowed in water provided by public water systems. Food and Drug Administration (FDA) regulations establish equivalent limits for contaminants in bottled water which must provide the same protection for public health.

All 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 the water poses a health risk.

Our Water Sources/Systems

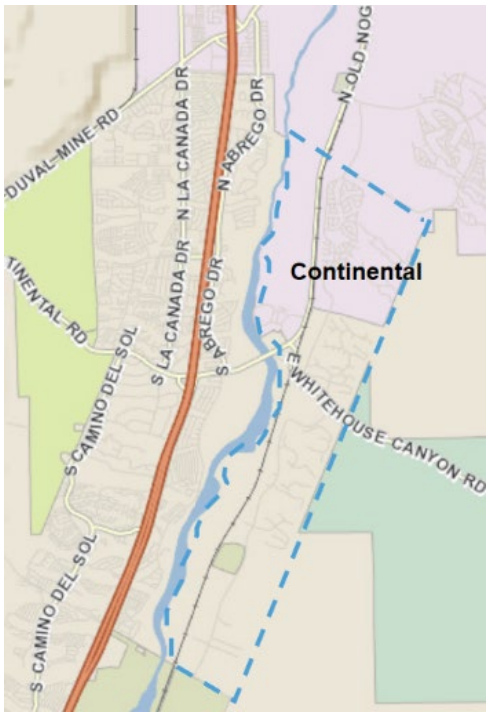
Farmers Water Co. pumps groundwater from a number of wells for the distribution of potable water at its 4 public water systems (PWS):

- PWS AZ04-10048 – Sahuarita
- PWS AZ04-10049 – Continental
- PWS AZ04-10213 – Santa Rita Springs
- PWS AZ04-10414 – Sahuarita Highlands

Each PWS has at least one groundwater well, storage tank, pressure tank, and distribution system. Because Farmers Water Co. pumps from our local high quality aquifer, minimal treatment is required. However, we do chlorinate/disinfect the water at each of our storage tanks before it is delivered through our distribution system to ensure that the water delivered to our customers remains free of microbiological contamination.

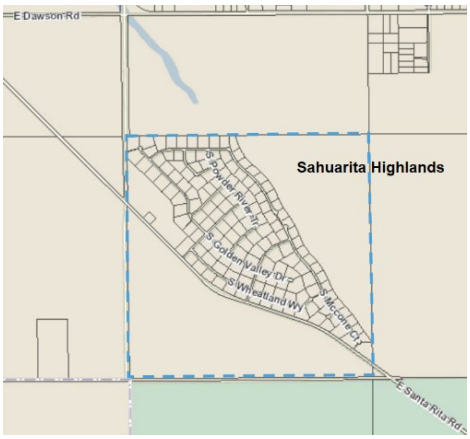
Our Sahuarita PWS is located east of Old Nogales Highway, along Sahuarita Rd. This system has over 90 services, including over 60 residential services, with the remainder non-residential. This PWS is served by two groundwater wells.

Our Continental PWS is located east of the Santa Cruz river, south of East Quail Creek Pkwy, and north of West Camino De Rondo. This system has about 1570 services with about 1470 residential and the remainder non-residential services. This PWS is served by two groundwater wells.



Our Santa Rita Springs PWS is located east of I-10, west of the Santa Cruz river, south of W. Calle Astorga. This system has about 1340 services with about 1295 residential and the remainder non-residential. This PWS is served by one groundwater well, with a back-up.

Our Sahuarita Highlands PWS is located east of S. Country Club Rd, and north of E. Santa Rita Road. This system has 153 services, all of which are residential. This PWS is served by a single groundwater well



Contaminants That May Be Present 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, which 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* that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- *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 stormwater runoff, and septic systems.
- *Radioactive contaminants* can be naturally-occurring or be the result of oil and gas production and mining activities.

Routine Monitoring

Farmers Water Co. routinely monitors for contaminants in your drinking water to meet Federal and State drinking water regulations. We monitor for certain contaminants on a monthly, quarterly or annual basis. Certain contaminants are monitored less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination.
The regulated contaminants tables for each water system list the contaminants that were detected, any regulated non-detected results were excluded from the table.

Helping to Minimize the Spread of COVID 19

COVID 19 has not be found to be transmitted through water systems. Farmers Water disinfects all water delivered to customers, which is highly effective in the elimination of all viruses. All utilities, including water, are essential services for the health and welfare of the community. Our staff is following CDC recommendations for sanitation and practicing social distancing. Operations staff are working in the field to maintain high quality water deliveries to your homes. Administrative staff have been working remotely, supporting customers and field staff. Our walk-in services have been closed, but customers can still contact us by phone, and make payments on-line, or by mail. We are here to serve you throughout the pandemic, and beyond.

EPA Message for Vulnerable Populations:

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 trans plants, 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 other microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

Source Water Assessment

Source Water Assessment Reports provide detailed information on the drinking water sources of a PWS by evaluating any risks of contamination. We use this information to evaluate the need to improve our water treatment

capabilities and prepare for possible future contamination threats.

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) the Arizona Department of Environmental Quality (ADEQ) has given a low risk designation to the Sahuarita, Continental and Santa Rita Springs PWS's for the degree to which these PWS drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implement or the hydrogeology is such that the source water protection measures will have little impact on protection. The Sahuarita Highlands PWS did not receive a source water assessment protection designation because it did not exist at the time of the assessment. Further source water assessment documentation can be obtained by contacting ADEQ. See: www.azdeq.gov

Potential sources of contamination in our source water area come from leaching that occurs during the earth's natural filtering process or possible direct infiltration. Common contaminants in our area include naturally occurring arsenic, nitrates, and sulfate.

Definitions

- ***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.
- ***Not Applicable (NA):*** Sampling was not completed by regulation or was not required.
- **Not Detected (ND or <):** Not detectable at reporting limit.
- **Not Required (NR):** Reporting of this constituent was not required by the regulatory agency since the last compliance sample was completed over 5 years ago .
- ***Picocuries per liter (pCi/L)***: Measure of the radioactivity in water
- ***(ppm):*** Parts per million or Milligrams per liter (mg/L) ppm x 1,000 = ppb
- ***(ppb):*** Parts per billion or Micrograms per liter (µg/L) ppb x 1,000 = pp

EPA 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. Farmers Water Co. is responsible for providing high quality drinking water to customers but cannot control the variety of materials used in household 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* at 1-800-426-4791 or at www.epa.gov/safewater/lead.

Assessment for Revised Total Coliform Rule

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. If coliform is found, then the system is responsible to look for potential problems in water treatment or distribution. When this occurs, the water system is required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. If E. coli bacteria is found, the water system is required to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

- In July of last year the utility was required to conduct a level 1 Assessment, but, out of an abundance of caution, we conducted a more stringent Level 2 assessment of the Continental PWS because initial sampling indicated the presence of coliform and E. coli in that service area.
- As a precautionary measure, we also conducted significant system flushing, and handed out bottled water to the

community.

- Additional and repeat sampling of the system was undertaken in accordance with regulatory requirements, resulting in no coliform or E. coli present.
- We also increased sampling frequency per regulatory requirements, to confirm the lack of coliform or E.coli in the Continental PWS.
- There were no corrective actions required.
- ADEQ commended FICO/Farmers Water on the textbook manner in which the issue was handled.

Sahuarita

Water Quality Data For 2019 Regulated Contaminants

PWS AZ04-10048

Disinfectants	Violation	Running Annual Average (RAA)	Range of All Samples (L-H)	MRDL	MRDLG	Sample Date	Major Source of Contaminant
Chlorine (ppm)	No	0.3	0.1 – 0.9	4	4	Monthly	Disinfection additive used to control microbes
Disinfection By-Products	**Violation**	**Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Source of Contaminant**
Total Trihalomethanes (TTHM) (ppb)	No	13.0	0.0 – 13.0	80	N/A	6/13/19	Byproduct of drinking water Chlorination
Haloacetic Acids (HAA5) (ppb)	No	2.8	0.0-2.8	60	N/A	6/13/19	Byproduct of drinking water disinfection
Lead & Copper	**Violation**	**90th Percentile AND Number of Samples Over the AL**	**Range of All Samples (L-H)**	**AL**	**ALG**	**Sample Date**	**Major Sources of Contaminant**
Copper (ppm)	No	90th Percentile = 0.17 0 over AL	0.0024 – 0.2	1.3	1.3	8/14/2019	Corrosion of household plumbing, natural deposits
Lead (ppb)	No	90th Percentile = 0.7 0 over AL	0 – 0.75	15	0	8/14/2019	Corrosion of household plumbing, natural deposits
Radionuclides	**Violation**	**Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Source of Contaminant**
Alpha emitters (pCi/L)	No	3	N/A	15	0	4/30/2018	Natural deposits
Combined Uranium (ug/L)	No	18	N/A	30	0	4/30/2018	Natural deposits
Inorganic Chemicals (IOC)	**Violation**	**Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Sources of Contaminant**
Arsenic[1] (ppb)	No	NR	N/A	10	0	N/A	Natural deposits, runoffs
Nitrate[2] (ppm)	No	6.3	N/A	10	10	3/14/2019	Natural deposits, runoff from fertilizer, leaching from septic tanks, sewage
Sodium (ppm)	No	58.0	N/A	N/A	N/A	4/30/2018	Natural deposits, septic

[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. Although not required, discretionary samples taken in March 2019 indicated detect level of 4.1 ppb.

[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.

Continental

(also includes Madera Highlands and Colonia Real subdivisions)

Water Quality Data For 2019 - Regulated Contaminants

PWS AZ04-10049

Disinfectants	Violation	Running Annual Average (RAA)	Range of All Samples (L-H)	MRDL	MRDLG	Sample Date	Major Source of Contaminant
Chlorine (ppm)	No	0.3	0.1 – 0.5	4	4	3X Monthly	Disinfection additive used to control microbes
Disinfection By-Products	**Violation**	**Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Source of Contaminant**
Total Trihalomethanes (TTHM) (ppb)	No	8.5	2.6 – 8.5	80	N/A	2 Sets 6/13/2019	Byproduct of drinking water Chlorination
Lead & Copper	**Violation**	**90th Percentile AND Number of Samples Over the AL**	**Range of All Samples (L-H)**	**AL**	**ALG**	**Sample Date**	**Major Sources of Contaminant**
Copper (ppm)	No	90th Percentile = 0.068 0 over AL	0.0018 – 0.091	1.3	1.3	8/14/2019	Corrosion of household plumbing, natural deposits
Lead (ppb)	No	90th Percentile = 0.63 0 over AL	0 – 0.84	15	0	8/14/2019	Corrosion of household plumbing, natural deposits
Radionuclides	**Violation**	**Levels Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Source of Contaminant**
Alpha emitters (pCi/L)	No	4.6-7.7 +/- 0.43	N/A	15	0	2 Samples 4/30/2018	Natural deposits
Inorganic Chemicals (IOC)	**Violation**	**Levels Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Sources of Contaminant**
Arsenic[1] (ppb)	No	4.8	4.6 - 4.8	10	0	2018	Natural deposits, runoffs
Barium (ppm)	No	0.42-0.046	N/A	2	2	2 Samples 4/30/2018	Natural deposits, discharge of industrial
Fluoride (ppm)	No	0.54	N/A	4	4	2 Samples 4/30/2018	Natural deposits, discharge from fertilizer
Nitrate[2] (ppm)	No	2-6.6	N/A	10	10	3 Samples 3/14/2019	Natural deposits, runoff from fertilizer, leaching from septic tanks, sewage
Sodium (ppm)	No	50-60	N/A	N/A	N/A	3 Samples 4/30/2018	Natural deposits, septic

[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. Discretionary (Non-compliance) sampling taken in March 2019 included a high level of 7.4 ppb.

[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.

Santa Rita Springs
Water Quality Data For 2019
Regulated Contaminants

PWS AZ04-10213

Disinfectants	Violation	Running Annual Average (RAA)	Range of All Samples (L-H)	MRDL	MRDLG	Sample Date	Major Source of Contaminant
Chlorine (ppm)	No	0.3	0.1-0.7	4	4	Monthly	Disinfection additive used to control microbes
Disinfection By-Products	**Violation**	**Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Source of Contaminant**
Total Trihalomethanes (TTHM) (ppb)	No	ND-6.1	0.0 – 5.4	80	N/A	6/13/2019	Byproduct of drinking water chlorination
Lead & Copper	**Violation**	**90th Percentile AND Number of Samples Over the AL**	**Range of All Samples (L-H)**	**AL**	**ALG**	**Sample Date**	**Major Sources of Contaminant**
Copper (ppm)	No	90th Percentile = 0.12 0 over AL	0.0093 – 0.24	1.3	1.3	9/6/2019	Corrosion of household plumbing, natural deposits
Lead (ppb)	No	90th Percentile = 1.1 0 over AL	0 – 3.7	15	0	9/6/2019	Corrosion of household plumbing, natural deposits
Radionuclides	**Violation**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Source of Contaminant**
Alpha emitters (pCi/L)	No	5.6 +/-1.1	N/A	15	0	4/30/2018	Natural deposits
Inorganic Chemicals (IOC)	**Violation**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Sources of Contaminant**
Arsenic[1] (ppb)	No	NR	N/A	10	0	NA	Natural deposits, runoff
Nitrate[2] (ppm)	No	4.2	N/A	10	10	3/14/2019	Natural deposits, runoff from fertilizer, leaching from septic tanks, sewage
Sodium (ppm)	No	50	N/A	N/A	N/A	4/30/2018	Natural deposits, septic

[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. Although not required, discretionary samples taken in March 2019 indicated detect level of 8.8 ppb.

[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.

Sahuarita Highlands
Water Quality Data For 2019
Regulated Contaminants

PWS AZ04-10414

Disinfectants	Violation	Running Annual Average (RAA)	Range of All Samples (L-H)	MRDL	MRDLG	Sample Date	Major Source of Contaminant
Chlorine (ppm)	No	0.4	0.1 – 0.9	4	4	Monthly	Disinfection additive used to control microbes
Disinfection By-Products	**Violation**	**Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Source of Contaminant**
Total Trihalomethanes (TTHM) (ppb)	No	4.7-7.2	0.0 – 7.2	80	N/A	6/13/2019	Byproduct of drinking water Chlorination
Lead & Copper	**Violation**	**90th Percentile AND Number of Samples Over the AL**	**Range of All Samples (L-H)**	**AL**	**ALG**	**Sample Date**	**Major Sources of Contaminant**
Copper (ppm)	No	90th Percentile = 0.49 0 over AL	0.02 – 0.057	1.3	1.3	8/15/2019	Corrosion of household plumbing, natural deposits
Lead (ppb)	Yes	90th Percentile = 0.61 0 over AL	0 – 0.66	15	0	1/15/2019	Corrosion of household plumbing, natural deposits
Radionuclides	**Violation**	**Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Source of Contaminant**
Alpha Emitters (pCi/L)	No	5.5 +/- 0.5	N/A	15	0	8/1/2016	Natural deposits
Inorganic Chemicals (IOC)	**Violation**	**Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Date**	**Major Sources of Contaminant**
Arsenic[1] (ppb)	No	2.1	N/A	10	0	3/14/2019	Natural deposits, runoffs
Barium (ppm)	No	0.081	N/A	2	2	3/14/2019	Natural deposits, discharge of industrial
Fluoride (ppm)	No	0.15	N/A	4	4	3/14/2019	Natural deposits, discharge from fertilizer
Nitrate[2] (ppm)	No	2.6	N/A	10	10	3/14/2019	Natural deposits, runoff from fertilizer, leaching
Sodium (ppm)	No	32.0	N/A	N/A	N/A	3/14/2019	Natural deposits, septic

[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.