

# 2023 WATER QUALITY REPORT



## A Message About Amarillo's Drinking Water

In order to ensure tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems and requires every public water system to provide information to each water customer annually.

The Consumer Confidence Report (CCR) is a summary of important information about your drinking water and the efforts made by the water supplier to provide safe drinking water. This report provides an analysis and summary of recent tests performed, as required by the Texas Commission on Environmental Quality (TCEQ). **Amarillo's water system has received a Superior Rating with the TCEQ, meeting all state and federal drinking water standards in 2023.**

We hope this information helps you become more knowledgeable about your drinking water. The City of Amarillo keeps a record of water quality reports on the city's website. Visit [www.amarillo.gov/env-lab](http://www.amarillo.gov/env-lab) to learn more.

### Special Notice for People with Weakened Immune Systems

Residents with weakened immune systems may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water.

Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections.

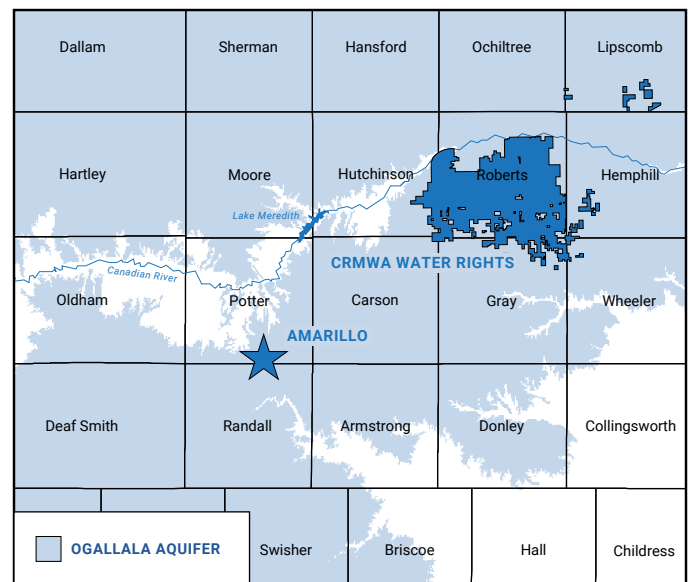
We recommend you seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to reduce the risk of infection by Cryptosporidium are available from the EPA Safe Drinking Water Hotline at 800-426-4791.

## Where Does My Drinking Water Come From?

Amarillo Municipal Water System (AMWS) provides surface water and groundwater from the Ogallala Aquifer, the Canadian River Municipal Water Authority (CRMWA), and well fields located in Carson, Potter, Deaf Smith and Roberts Counties.

Amarillo is one of eleven member cities of the CRMWA. Our current allocation from CRMWA is 11.550 billion gallons of water per year. CRMWA obtains its water from Lake Meredith and its well field in Roberts County.

Amarillo has approximately 259,842 acres of water rights in the multiple Texas Panhandle counties. Most of these water rights are undeveloped and reserved for future use.



We utilize a conventional treatment process to supply drinking water—currently a blend of 55% surface water and 45% groundwater. Amarillo presently has the capacity to treat and supply 121 million gallons of water per day.



This report includes important information about your drinking water.

Este reporte incluye información importante sobre el agua para tomar.

Para asistencia en español, favor de llamar al teléfono 806-673-5357.



[amarillo.gov/env-lab](http://amarillo.gov/env-lab)

# 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 it 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, 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 might have 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 the result of oil and gas production and mining activities.

Amarillo's municipal drinking water sources are located mostly in farming and ranching areas; therefore, the susceptibility for contamination comes mainly from agricultural practices. Fertilizers, pesticides, and other agricultural chemicals, as well as run-off from Confined Animal Feeding Operations (CAFOs), represent potential contamination sources.

Amarillo has an ongoing Wellhead Protection Program, which is designed to apply TCEQ well standards and guidelines to helping prevent pollution and protecting our groundwater drinking water sources.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

*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 EPA's Safe Drinking Water Hotline at 800-426-4791.

TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Ben Orr at 806-673-5357.



The Osage Water Treatment plant has a daily treatment capacity of 70 million gallons, and 15 million gallons of groundwater storage.

## Cryptosporidium

AMWS is monitoring for Cryptosporidium, a microbial parasite that may be commonly found in surface water. Cryptosporidium may come from animal and human feces in the watershed. The results of our monitoring indicated the absence of Cryptosporidium in the raw water and/or treated water. The testing methods used cannot determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection with nausea, diarrhea and abdominal cramps that may occur after ingestion of contaminated water.

## 2023 Estimated Water Loss

In the water loss audit submitted to the Texas Water Development Board (TWDB) for the time period of January through December 2023, the system lost an estimated 2.9 billion gallons of water, or approximately 17.7%.

If you have any questions about the water loss audit, contact Amarillo Municipal Water System at 806-378-5212, or contact the TWDB Water Loss Audit Team by phone at 512-463-0987 or by email at [wla-group@twdb.texas.gov](mailto:wla-group@twdb.texas.gov).

When you contact TWDB, please be sure to reference the Amarillo Municipal Water System, PWS ID: TX1880001.

# Drinking Water Quality Results

The tables below lists drinking water contaminants that were detected by the State of Texas 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. The data presented in these tables are from our most recent tests that were performed in 2023, unless otherwise noted.

| INORGANIC CONTAMINANTS |                                   |                        |                          |      |     |       |           |  |
|------------------------|-----------------------------------|------------------------|--------------------------|------|-----|-------|-----------|--|
| Collection Date        | Substance                         | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination   |
| 2023                   | Arsenic                           | 2                      | 1.7 - 2.1                | 0    | 10  | ppb   | No        | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.                    |
| 2023                   | Barium                            | 0.17                   | 0.13 - 0.17              | 2    | 2   | ppm   | No        | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.                                |
| 2023                   | Chromium                          | 1.9                    | 1.1 - 1.9                | 100  | 100 | ppb   | No        | Discharge from steel and pulp mills; Erosion of natural deposits.  |
| 2023                   | Fluoride                          | 0.7                    | 0.569 - 1.16             | 4    | 4   | ppm   | No        | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| 2023                   | Nitrate<br>(measured as Nitrogen) | 1                      | 0.965 - 1.37             | 10   | 10  | ppm   | No        | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.                               |

**Nitrate Advisory:** 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, you should ask advice from your health care provider.

| RADIOACTIVE CONTAMINANTS |  |                        |                          |      |     |       |           |   |
|--------------------------|--|------------------------|--------------------------|------|-----|-------|-----------|---|
| Collection Date          | Substance                                    | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination          |
| 2023                     | Beta/Photon emitters                         | 8.2                    | 6.6 - 8.2                | 0    | 50  | pCi/L | No        | Decay of natural and man-made deposits. |
| 2023                     | Gross alpha<br>(excluding Radon and Uranium) | 6                      | 2 - 6                    | 0    | 15  | pCi/L | No        | Erosion of natural deposits.            |
| 2023                     | Uranium                                      | 7                      | 5.9 - 7                  | 0    | 30  | ppb   | No        | Erosion of natural deposits.            |

**Note:** The EPA considers 50 pCi/L to be the level of concern for beta particles.

| RESIDUAL DISINFECTANT LEVEL |           |               |                          |      |       |       |           |  |
|-----------------------------|-----------|---------------|--------------------------|------|-------|-------|-----------|--|
| Collection Date             | Substance | Average Level | Range of Levels Detected | MRDL | MRDLG | Units | Violation | Likely Source of Contamination           |
| 2023                        | Chlorine  | 1.5125        | 0.2 - 4.0                | 4    | 4     | ppb   | No        | Water additive used to control microbes. |

| DISINFECTION BY-PRODUCTS |                       |                        |                          |      |     |       |           |  |
|--------------------------|-----------------------|------------------------|--------------------------|------|-----|-------|-----------|--|
| Collection Date          | Substance             | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination             |
| 2023                     | Haloacetic Acids      | 21                     | 0 - 29.2                 | -    | 60  | ppb   | No        | By-product of drinking water disinfection. |
| 2023                     | Total Trihalomethanes | 59                     | 0 - 84.6                 | -    | 80  | ppb   | No        | By-product of drinking water disinfection. |

**Note:** The value in the Highest Level Detected column is the highest average of all Haloacetic Acids (HAA5) or Total Trihalomethanes (TTHM) sample results collected at a location over a year.

| LEAD AND COPPER |           |                 |                              |              |      |       |           |   |
|-----------------|-----------|-----------------|------------------------------|--------------|------|-------|-----------|---|
| Collection Date | Substance | 90th Percentile | # of Sites Over Action Level | Action Level | MCLG | Units | Violation | Likely Source of Contamination  |
| 2022            | Copper    | 0.055           | 0                            | 1.3          | 1.3  | ppm   | No        | Corrosion of household plumbing systems; erosion of natural deposits.                                   |
| 2022            | Lead      | 0.2             | 0                            | 15           | 0    | ppb   | No        | Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems. |

**Lead Advisory:** 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. Amarillo Municipal Water System 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 two 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 <http://www.epa.gov/safewater/lead>.

| TURBIDITY                                   |                             |                |           |                                |
|---|-----------------------------|----------------|-----------|--------------------------------|
| Turbidity                                   | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination |
| Highest single measurement                  | 1 NTU                       | 0.38 NTU       | No        | Soil runoff.                   |
| Lowest monthly percentage (%) meeting limit | 0.3 NTU                     | 100%           | No        | Soil runoff.                   |

**Information Statement:** Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration.

| VOLATILE ORGANIC CONTAMINANTS |                   |                        |                          |      |     |       |           |   |
|-------------------------------|-------------------|------------------------|--------------------------|------|-----|-------|-----------|---|
| Collection Date               | Substance         | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination                |
| 2023                          | p-Dichlorobenzene | 5                      | 0 - 4.65                 | 75   | 75  | ppb   | No        | Discharge from industrial chemical factories. |

| VIOLATIONS     |                 |               |   |
|----------------|-----------------|---------------|---|
| Violation Type | Violation Begin | Violation End | Violation Explanation   |
| CCR Report     | 07/01/2023      | 2023          | We failed to provide you, our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water. |

**The Consumer Confidence Rule:** The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.

## Definitions & Abbreviations

**Maximum Contaminant Level (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 Contaminant Level Goal (MCLG)** – The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL)** – The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG)** – 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 contamination.

**Level 1 assessment** – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria were found.

**Level 2 assessment** – A very detailed study of the water system to identify potential problems and determine (if possible) why an Escherichia coli (E. coli) MCL violation has occurred and/or why total coliform bacteria were found on multiple occasions.

**Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**NTU** – Nephelometric Turbidity Unit.

**pCi/L** – picocuries per liter.

**ppb** – parts per billion or micrograms per liter (µg/L) - or one ounce in 7.35 million gallons of water.

**ppm** – parts per million or milligrams per liter (mg/L) - or one ounce in 7.35 million gallons of water.



# Amarillo UCMR5 Lithium

The EPA has not established a non-regulatory drinking water Health Advisory or any regulatory standard for lithium in public drinking water supplies.

UCMR5, or Fifth Unregulated Contaminant Monitoring Rule, requires sample collection for 30 chemical contaminants between 2023 and 2025 using the EPA's and consensus organizations' analytical methods.

Lithium is a naturally occurring element and may be found at higher concentrations in certain parts of the country, particularly in groundwater sources in arid locations in the Western U.S. where geologic formations contain lithium salts (EPA, 2008; Lindsey et al., 2021).

The EPA's Fifth Candidate Contaminant List (CCL 5)

Health Reference Level (HRL) of 10 µg/L is based on the p-RfD, consideration of the general population risk, a daily drinking water ingestion rate of 33.8 ml/kg-day, and a "default" assumption that drinking water accounts for 20% of daily lithium intake compared with other sources (EPA, 2022b). The U.S. Geological Survey (USGS) also published a 10 µg/L screening level for lithium (USGS, 2018).

As an alternative non-regulatory screening level, the USGS published a "drinking water only" benchmark (i.e., based on an assumption that drinking water is the only source of daily lithium intake) of 60 µg/L to provide context for evaluating lithium concentrations in groundwater (Lindsey et al., 2021).

| Amarillo UCMR5 Lithium Results (µg/L) |                  |                 |                |
|---------------------------------------|------------------|-----------------|----------------|
|                                       | Location         | Collection Date | Reported Value |
| EP004                                 | 34th PS          | 11/07/2023      | 37.4           |
| EP005                                 | Bonham PS        | 11/07/2023      | 33.6           |
| EP001                                 | Osage PS         | 11/07/2023      | 32.8           |
| EP002                                 | Masterson PS     | 08/08/2023      | 33.8           |
| EP006                                 | Potter County PS | 08/08/2023      | 20.8           |
| EP007                                 | Arden Road PS    | 11/07/2023      | 38.1           |

## Frequently Asked Questions About Water

### How can I get involved?

You may become involved in the decision-making process affecting our municipal water system by attending and voicing your opinions at meetings of the Amarillo City Council. The City Council meets on the second and fourth Tuesday of every month in the Council Chambers on the 3rd floor of City Hall, 601 S. Buchanan, 79101. You may also contact the City of Amarillo Water Utilities Department at 806-378-5212, TDD 806-378-4229, or P.O. Box 1971, Amarillo, TX 79105-1971.

### How do I start a new water service?

All customers will need to fill out an application available here: [www.2turniton.com](http://www.2turniton.com). You can also make a request via email at [waterbill@amarillo.gov](mailto:waterbill@amarillo.gov) or contact us by phone at 806-378-3030. We may request a copy of the lease or deed for the property depending on the status of that address.

### Am I getting a new water meter?

The City of Amarillo is implementing a new digital water meter system. The update will modernize water service for every customer by upgrading the more than 70,000 traditional water meters with a cutting-edge digital system. Information and FAQs regarding the digital water meter system can be found at [www.amarillo.gov/watermeter](http://www.amarillo.gov/watermeter).

### What to do if my bill is unusually high?

If you have a high or unusual bill, contact Utility Billing at 806-378-3030, or [waterbill@amarillo.gov](mailto:waterbill@amarillo.gov). Once you notify us, we will send out a meter verification. If the customer has a new digital meter we can research and pull the data from the system. If the reading is normal, we can offer you a high consumption adjustment. You will only be eligible for this once every two years.

## Every Drop Counts

Living in the Texas Panhandle means understanding the value of every drop. Water is scarce, and conserving it is crucial to safeguarding our future. While the city works consistently to secure more water rights, we all play a role in conserving this precious resource. "Every Drop Counts" is the City of Amarillo's long-running water conservation campaign. The program provides education and incentives for water conservation in the Panhandle, particularly among school-aged citizens.

### 2023 Poster Contest

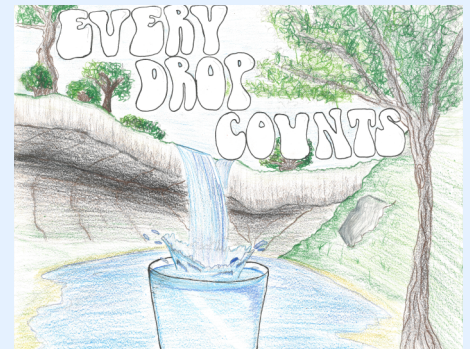
The program hosts an annual poster contest that took place from March to June of 2023. K-12 students submit poster-sized artwork around the theme of water conservation, and compete for prizes generously donated by local businesses as well as the chance to be featured in the following year's "Every Drop Counts" calendar. To see all the 2023 winners, and for more information on the 2024 contest, visit [www.amarillo.gov/EveryDropCounts](http://www.amarillo.gov/EveryDropCounts).



Marley Contreras, Grand Prize Winner.



Jerin Bradley, Middle School 2<sup>nd</sup> Prize Winner.



Carter Esteban, High School 1<sup>st</sup> Prize Winner.