



# 2017 Annual Drinking Water Quality Report

(Consumer Confidence Report)

Safe – High Quality – Drinking Water – Right From Your Tap

TX0430004  
Annual Water Quality Report for the period of January 1 to December 31, 2017

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe 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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

**For more information regarding this report contact:**

**Benjamin L. White, City Manager ~ (972) 782-6151**  
Or Paula Jackson, Assistant to the City Manager

**Public Participation Opportunities**

Date: 2<sup>nd</sup> and 4<sup>th</sup> Tuesday of each month  
Time: 6:00 p.m.  
Location: 205 S. Main Street  
Farmersville, Texas 75442

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor del llamar al telefono (972) 782-6151.

**The source of drinking water used by the City of Farmersville is Purchased Surface Water.**

**Sources of 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 pickup substances resulting from the presence of animals or from human activity.

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.

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 by-products 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 amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which 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.

**City of Farmersville**

205 S. Main Street  
Farmersville, Texas 75442  
(972) 782-6151

You 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. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline 800-426-4791.

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 are responsible for providing high quality drinking water, but we 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 <http://www.epa.gov/safewater/lead>.

### Information about Source Water Assessments

The TCEQ has completed a source Water Assessment for all drinking water systems that own their sources. The report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The system(s) from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact North Texas Municipal Water District (NTMWD) at 972-442-5405.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:  
<http://gis3.tceq.state.tx.us/swaw/Controller/index.jsp?wtrsrc=>

Further details about sources and source water assessments are available in Drinking Water Watch at the following URL:  
<http://dww.tceq.texas.gov/DWW/>

| Source Water Name | Type of Water  | Report Status | Location     |
|-------------------|--|---------------|--------------|
| NTMWD             | CC FROM TX0430044 NORTH TEXAS MUNICIPAL WATER DISTRICT | SW            | A LAKE LAVON |

### 2017 City of Farmersville – 0430004 - 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) | 90 <sup>th</sup> Percentile | # Sites Over AL | Units | Violation | Likely Source of Contamination  |
|-----------------|--------------|------|-------------------|-----------------------------|-----------------|-------|-----------|---|
| Copper          | 2017         | 1.3  | 1.3               | .82                         | 0               | ppm   | N         | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| Lead            | 2017         | 0    | 15                | 1.2                         | 0               | ppb   | N         | Corrosion of household plumbing systems; Erosion of natural deposits.                                   |

### Definitions and Abbreviations

|   |  |
|---|--|
| Definitions                                 | The following tables contain 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  |
| 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 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.   |
| 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.  |
| 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.   |
| Level 2 Assessment                          | A Level 2 assessment is a very detailed study of the water system to identify potential and determine (if possible) why a E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions. |
| 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.  |
| Maximum residual disinfectant               | The level of a drinking water disinfectant below which there is no known or expected risk to health.   |

|                            |   |
|----------------------------|---|
| level goal or MRDLG        | MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. |
| MFL                        | Million fibers per liter (a measure of asbestos)  |
| na                         | Not applicable  |
| mrem                       | Millirems per year (a measure of radioactivity)   |
| NTU                        | Nephelometric turbidity units (a measure of turbidity)  |
| pCi/L                      | Picocuries per liter (a measure of radioactivity)   |
| ppb                        | Micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water            |
| ppm                        | Milligrams per liter or parts per million – or one ounce in 7,350 gallons of water                |
| Treatment Technique or TT: | A required process intend to reduce the level of a contaminant in drinking water                  |
| ppt                        | Parts per trillion, or nanograms per liter (ng/L)   |
| ppq                        | Parts per quadrillion, or picograms per liter (pg/L)  |

**2017 City of Farmersville – 0430004 – Water Quality Test Result**

| Disinfectants and Disinfection By-Products | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG                  | MCL | Units | Violation | Likely Source of Contamination   |
|--|-----------------|------------------------|--------------------------|-----------------------|-----|-------|-----------|--|
| Haloacetic Acids (HAAS)*                   | 2017            | 26                     | 21-37.6                  | No goal for the total | 60  | ppb   | N         | By-product of drinking water disinfection.   |
| Total Trihalomethanes (TTHM)               | 2017            | 37                     | 24.5-49.2                | 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   |
| Nitrate (measured as Nitrogen)             | 2017            | .215                   | 0.215-0.215              | 10                    | 10  | ppm   | N         | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

**2017 City of Farmersville – 0430004 - Disinfectant Residual Table**

| Disinfectant | Year | Average Level | Minimum Level | Maximum Level | MRDL | MRDLG | Unit of Measure | Violation (Y/N) | Likely Source of Contamination   |
|--------------|------|---------------|---------------|---------------|------|-------|-----------------|-----------------|--|
| Chloramine   | 2017 | 1.6           | 0.5           | 3.6           | 4    | 4     | ppm             | N               | Disinfectant used to treat drinking water for a longer-lasting treatment |

**NTMWD – 0430044 – 2017 Regulated Contaminants Detected  
Coliform Bacteria**

| Maximum Contaminant Level Goal | Total Coliform Maximum Contaminant Level | Highest No. of Positive | Fecal Coliform or E. Coli Maximum Contaminant Level | Total No. of Positive E. Coli or Fecal Coliform Samples | Violation | Likely Source of Contamination        |
|--------------------------------|--|-------------------------|---|---|-----------|---------------------------------------|
| 0                              | 1  | 0                       | 0   | 0   | N         | Naturally present in the environment. |

| Disinfectants and Disinfection By-Products | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG                  | MCL | Units | Violation | Likely Source of Contamination             |
|--|-----------------|------------------------|--------------------------|-----------------------|-----|-------|-----------|--|
| Haloacetic Acids (HAAS)*                   | 2017            | 26                     | 21-37.6                  | No goal for the total | 60  | ppb   | N         | By-product of drinking water chlorination. |
| Total Trihalomethanes (TTHM)               | 2017            | 37                     | 24.5-49.2                | No goal for the total | 80  | ppb   | N         | By-product of drinking water chlorination. |

| Inorganic Contaminants         | Collection Date | Highest Level or Average Detected | Range of Individual Samples | MCLG | MCL | Units  | Violation | Likely Source of Contamination   |
|--------------------------------|-----------------|-----------------------------------|-----------------------------|------|-----|--------|-----------|--|
| Arsenic                        | 2017            | Levels lower than detect levels   | 0-0                         | 0    | 10  | ppb    | N         | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.                    |
| Barium                         | 2017            | 0.060                             | 0.059-0.060                 | 2    | 2   | ppm    | N         | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.                                |
| Fluoride                       | 2017            | 0.38                              | 0.26-0.                     | 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) | 2017            | 0.97                              | 0.09-0.97                   | 10   | 10  | ppm    | N         | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.                               |
| Radioactive Contaminants       | Collection Date | Highest Level Detected            | Range of Level Detected     | MCLG | MCL | Units  | Violation | Likely Source of Contamination   |
| Beta/photon emitters           | 2017            | 6.2                               | 6.2-6.2                     | 0    | 50  | pCi/L* | N         | Decay of natural and man-made deposits.  |

\*The MCL for beta particles in 4 mrem/year. EPA consider 50 pCi/L to be the level of concern for beta particles.

\*\*Because the beta particle results were below 50 pCi/L, no testing for individual beta particle constituents was required.

| Synthetic organic contaminants including pesticides and herbicides | Collection Date | Highest Level Detected           | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination           |
|--|-----------------|----------------------------------|--------------------------|------|-----|-------|-----------|--|
| Altrazine  | 2017            | .20                              | 0.20-0.20                | 3    | 3   | ppb   | N         | Runoff from herbicide used on row crops. |
| Simazine   | 2017            | Levels lower than detected level | 0-0                      | 4    | 4   | ppb   | N         | Herbicide runoff.                        |

#### Turbidity

|                                | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination |
|--------------------------------|-----------------------------|----------------|-----------|--------------------------------|
| Highest single measurement     | 1 NTU                       | 0.74           | N         | Soil runoff                    |
| Lowest monthly % meeting limit | 0.3 NTU                     | 99.23%         | N         | 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.<sup>3</sup>

#### Total Organic Carbon

|               | Collection Date | Highest Level Detected | Range of Levels Detected | Units     | Likely Source of Contamination        |
|---------------|-----------------|------------------------|--------------------------|-----------|---------------------------------------|
| Source Water  | 2017            | 4.38                   | 3.93 – 4.38              | ppm       | Naturally present in the environment. |
| Drink Water   | 2017            | 3.24                   | 2.20 – 3.24              | ppm       | Naturally present in the environment. |
| Removal Ratio | 2017            | 47.2%                  | 22.5 – 47.2              | % removal | N/A                                   |

NOTE: Total Organic Carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes THMs and haloacetic acids (HAA) which are reported elsewhere in the report.

\*Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

**Violations****Lead and Copper Rule**

The Lead and Copper Rule protects public health by minimizing the lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water from corrosion of lead and copper containing plumbing materials.

| <b>Violation Type</b>      | <b>Violation Begin</b> | <b>Violation End</b> | <b>Violation Explanation</b>   |
|----------------------------|------------------------|----------------------|--|
| LEAD CONSUMER NOTICE (LCR) | 12/30/2017             | 2017                 | We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested with in the 30 day limit<br>They were delivered within 60 days of leaning the results. |
|                            |                        |                      |  |
|                            |                        |                      |  |
|                            |                        |                      |  |