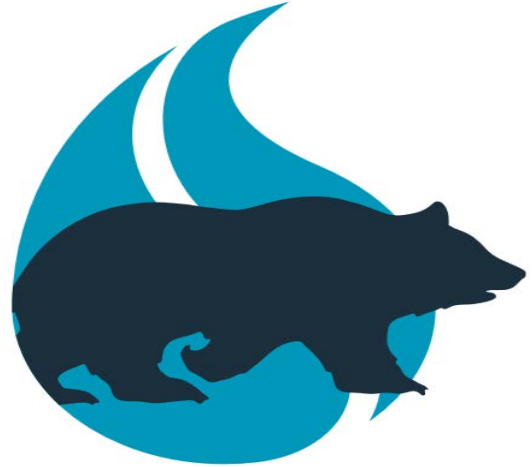


# 2017 Annual

## Drinking Water

## Quality Report



### Consumer Confidence Report Period January 1 to December 31, 2017

---

#### **BEAR CREEK SUD**

Phone No: 972-843-2101

**PWS ID# 0430037**

---

#### **SPECIAL NOTICE**

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; those 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 provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available

from the Safe Drinking Water Hotline (1-800-426-4791).

#### **Public Participation Opportunities**

**Date:** 2nd Tuesday of each month

**Time:** 7:00 P.M.

**Location:** 16881 C. R. 541  
Lavon, TX 75166

**Phone No:** 972-843-2101

**Website:** [www.bearcreeksud.com](http://www.bearcreeksud.com)

If you have questions about this report or concerning your water utility, please contact Camille Reagan, General Manager, by calling (972) 843-2101 or writing to: P.O. Box 188, Lavon, TX 75166. You may also send email to [h20@bearcreeksud.com](mailto:h20@bearcreeksud.com).

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (972) 843-2101.

## 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 pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment 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.

## Where do we get our drinking water?

Bear Creek SUD purchases water from North Texas MWD (TX0430044) Wylie Water

Treatment Plant. North Texas MWD Wylie Treatment Plant provides purchase surface water from Lake Lavon Reservoir located in Collin County.

## Source Water Assessment

TCEQ completed a Source Water Susceptibility Assessment for all drinking water systems that own their sources. The report describes the susceptibility and types of constituents that may come in 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 Camille Reagan, General Manager at (972) 843-2101.

For more information about your sources of water please refer to the Source Water Assessment Viewer available at <http://www.tceq.texas.gov/gis/swaview>. Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww2.tceq.texas.gov/DWW/>.

## ALL drinking water may contain contaminants.

When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point of use devices. 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 (1-800-426-4791).

## Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

## About the Following Section

The section that follows list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U. S. EPA requires water systems to test for up to 97 contaminants.

## Definitions

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

### Action Level

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

### 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.

### 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 (MCL)

The highest permissible level of a contaminant 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.

**mrem:** millirems per year (a measure of radiation absorbed by the body).

**ppb:** micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.

**N/A:** not applicable.

**Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**ppm:** milligrams per liter or parts per million – or one ounce in 7,350 gallons of water.

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

### ABBREVIATIONS

|                |  |
|----------------|--|
| <b>NTU –</b>   | Nephelometric Turbidity Units  |
| <b>MFL –</b>   | million fibers per liter (a measure of asbestos)   |
| <b>pCi/L –</b> | picocuries per liter (a measure of radioactivity)  |
| <b>ppm -</b>   | parts per million, or milligrams per liter (mg/L) or one ounce in 7,350 gallons of water     |
| <b>ppb -</b>   | parts per billion, or micrograms per liter (µg/L) or one ounce in 7,350,000 gallons of water |
| <b>ppt -</b>   | parts per trillion, or nanograms per liter (ng/L)  |
| <b>ppq -</b>   | parts per quadrillion, or picograms per liter (pg/L)   |

## 2017 Water Quality Results - Bear Creek Special Utility District

| 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 positive monthly sample                | 0                       | 0   | 0   | N         | Naturally present in the environment. |

**NOTE:** Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

| Lead and Copper |              |      |                   |                 |                 |       |           |   |
|-----------------|--------------|------|-------------------|-----------------|-----------------|-------|-----------|---|
| Lead and Copper | Date Sampled | MCLG | Action Level (AL) | 90th Percentile | # Sites Over AL | Units | Violation | Likely Source of Contamination  |
| Copper          | 2017         | 1.3  | 1.3               | 0.69            | 0               | ppm   | N         | Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems. |
| Lead            | 2017         | 0    | 15                | 1.4             | 0               | ppb   | N         | Corrosion of household plumbing systems; erosion of natural deposits.                                   |

**ADDITIONAL HEALTH INFORMATION FOR LEAD:** 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. Bear Creek SUD 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, 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>.

| Disinfectant Residual Table |      |               |               |               |      |       |       |           |  |
|-----------------------------|------|---------------|---------------|---------------|------|-------|-------|-----------|--|
| Disinfectant                | Year | Average Level | Minimum Level | Maximum Level | MRDL | MRDLG | Units | Violation | Likely Source of Contamination         |
| Chlorine Residual           | 2017 | 2.79          | 0.70          | 4.1           | 4.0  | <4.0  | ppm   | N         | Disinfectant used to control microbes. |

| Regulated Contaminants                     |                 |                        |                          |                       |     |       |           |  |
|--|-----------------|------------------------|--------------------------|-----------------------|-----|-------|-----------|--|
| Disinfectants and Disinfection By-Products | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG                  | MCL | Units | Violation | Likely Source of Contamination             |
| Total Haloacetic Acids (HAA5)              | 2017            | 27                     | 21.4-36.4                | No goal for the total | 60  | ppb   | No        | By-product of drinking water disinfection. |
| Total Trihalomethanes (TTHM)               | 2017            | 34                     | 25-45                    | No goal for the total | 80  | ppb   | No        | By-product of drinking water disinfection. |

\* The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

| Inorganic Contaminants         |                 |                        |                          |      |     |       |           |  |
|--------------------------------|-----------------|------------------------|--------------------------|------|-----|-------|-----------|--|
| Inorganic Contaminants         | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination   |
| Nitrate (measured as Nitrogen) | 2017            | 0                      | 0.217-0.311              | 10   | 10  | ppm   | No        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

# 2017 Water Quality Results - Wylie Water Treatment Plants

| 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 positive monthly sample                | 0                              | 0   | 0   | No        | Naturally present in the environment. |           |  |
| NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.  |  |                                |   |   |           |                                       |           |  |
| Regulated Contaminants  |  |                                |   |   |           |                                       |           |  |
| Disinfectants and Disinfection By-Products  | Collection Date                          | Highest Level Detected         | Range of Levels Detected                            | MCLG  | MCL       | Units                                 | Violation | Likely Source of Contamination   |
| Total Haloacetic Acids (HAA5)   | 2017                                     | 30.8                           | 30.8 - 30.8   | No goal for the total                                   | 60        | ppb                                   | No        | By-product of drinking water disinfection.   |
| Total Trihalomethanes (TTHM)  | 2017                                     | 32.3                           | 32.3 - 32.3   | No goal for the total                                   | 80        | ppb                                   | No        | By-product of drinking water disinfection.   |
| Bromate   | 2017                                     | Levels lower than detect level | 0.0 - 0.0   | 5   | 10        | ppb                                   | No        | By-product of drinking water ozonation.  |
| NOTE: Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future. TCEQ only requires one sample annually for compliance testing.  |  |                                |   |   |           |                                       |           |  |
| Inorganic Contaminants  | Collection Date                          | Highest Level Detected         | Range of Levels Detected                            | MCLG  | MCL       | Units                                 | Violation | Likely Source of Contamination   |
| Antimony  | 2017                                     | Levels lower than detect level | 0 - 0   | 6   | 6         | ppb                                   | No        | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.                              |
| Arsenic   | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 10        | ppb                                   | No        | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.                              |
| Barium  | 2017                                     | 0.06                           | 0.059 - 0.060                                       | 2   | 2         | ppm                                   | No        | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.  |
| Beryllium   | 2017                                     | Levels lower than detect level | 0 - 0   | 4   | 4         | ppb                                   | No        | Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.            |
| Cadmium   | 2017                                     | Levels lower than detect level | 0 - 0   | 5   | 5         | ppb                                   | No        | Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints. |
| Chromium  | 2017                                     | Levels lower than detect level | 0 - 0   | 100   | 100       | ppb                                   | No        | Discharge from steel and pulp mills; erosion of natural deposits.  |
| Fluoride  | 2017                                     | 0.38                           | 0.26 - 0.38   | 4   | 4         | ppm                                   | No        | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.           |
| Mercury   | 2017                                     | Levels lower than detect level | 0 - 0   | 2   | 2         | ppb                                   | No        | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.                   |
| Nitrate (measured as Nitrogen)  | 2017                                     | 0.97                           | 0.09 - 0.97   | 10  | 10        | ppm                                   | No        | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.   |
| Selenium  | 2017                                     | Levels lower than detect level | 0 - 0   | 50  | 50        | ppb                                   | No        | Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.                                    |
| Thallium  | 2017                                     | Levels lower than detect level | 0 - 0   | 0.5   | 2         | ppb                                   | No        | Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.   |
| 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                          | Highest Level Detected         | Range of Levels Detected                            | MCLG  | MCL       | Units                                 | Violation | Likely Source of Contamination   |
| Beta/Photon emitters  | 2017                                     | 6.2                            | 6.2 - 6.2   | 0   | 50        | pCi/L                                 | No        | Decay of natural and man-made deposits.  |
| Gross alpha excluding radon and uranium   | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 15        | pCi/L                                 | No        | Erosion of natural deposits.   |
| Radium  | 2017                                     | 1.27                           | 1.27 - 1.27   | 0   | 5         | pCi/L                                 | No        | Erosion of natural deposits.   |
| Synthetic organic contaminants including pesticides and herbicides  | Collection Date                          | Highest Level Detected         | Range of Levels Detected                            | MCLG  | MCL       | Units                                 | Violation | Likely Source of Contamination   |
| 2, 4, 5 - TP (Silvex)   | 2017                                     | Levels lower than detect level | 0 - 0   | 50  | 50        | ppb                                   | No        | Residue of banned herbicide.   |
| 2, 4 - D  | 2017                                     | Levels lower than detect level | 0 - 0   | 70  | 70        | ppb                                   | No        | Runoff from herbicide used on row crops.   |
| Alachlor  | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 2         | ppb                                   | No        | Runoff from herbicide used on row crops.   |
| Atrazine  | 2017                                     | 0.2                            | 0.20 - 0.20   | 3   | 3         | ppb                                   | No        | Runoff from herbicide used on row crops.   |
| Benzo (a) pyrene  | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 200       | ppt                                   | No        | Leaching from linings of water storage tanks and distribution lines.   |
| Carbofuran  | 2017                                     | Levels lower than detect level | 0 - 0   | 40  | 40        | ppb                                   | No        | Leaching of soil fumigant used on rice and alfalfa.  |
| Chlordane   | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 2         | ppb                                   | No        | Residue of banned termiticide.   |
| Dalapon   | 2017                                     | Levels lower than detect level | 0 - 0   | 200   | 200       | ppb                                   | No        | Runoff from herbicide used on rights of way.   |
| Di (2-ethylhexyl) adipate   | 2017                                     | Levels lower than detect level | 0 - 0   | 400   | 400       | ppb                                   | No        | Discharge from chemical factories.   |
| Di (2-ethylhexyl) phthalate   | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 6         | ppb                                   | No        | Discharge from rubber and chemical factories.  |
| Dibromochloropropane (DBCP)   | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 0         | ppt                                   | No        | Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.   |
| Dinoseb   | 2017                                     | Levels lower than detect level | 0 - 0   | 7   | 7         | ppb                                   | No        | Runoff from herbicide used on soybeans and vegetables.   |
| Endrin  | 2017                                     | Levels lower than detect level | 0 - 0   | 2   | 2         | ppb                                   | No        | Residue of banned insecticide.   |
| Ethylene dibromide  | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 50        | ppt                                   | No        | Discharge from petroleum refineries.   |
| Heptachlor  | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 400       | ppt                                   | No        | Residue of banned termiticide.   |
| Heptachlor epoxide  | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 200       | ppt                                   | No        | Breakdown of heptachlor.   |
| Hexachlorobenzene   | 2017                                     | Levels lower than detect level | 0 - 0   | 0   | 1         | ppb                                   | No        | Discharge from metal refineries and agricultural chemical factories.   |

| Hexachlorocyclopentadiene       | 2017            | Levels lower than detect level | 0 - 0                    | 50   | 50  | ppb   | No        | Discharge from chemical factories.   |
|---------------------------------|-----------------|--------------------------------|--------------------------|------|-----|-------|-----------|--|
| Lindane                         | 2017            | Levels lower than detect level | 0 - 0                    | 200  | 200 | ppt   | No        | Runoff / leaching from insecticide used on cattle, lumber, and gardens.                |
| Methoxychlor                    | 2017            | Levels lower than detect level | 0 - 0                    | 40   | 40  | ppb   | No        | Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, and livestock. |
| Oxamyl [Vydate]                 | 2016            | Levels lower than detect level | 0 - 0                    | 200  | 200 | ppb   | No        | Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.             |
| Pentachlorophenol               | 2016            | Levels lower than detect level | 0 - 0                    | 0    | 1   | ppb   | No        | Discharge from wood preserving factories.  |
| Simazine                        | 2017            | Levels lower than detect level | 0 - 0                    | 4    | 4   | ppb   | No        | Herbicide runoff.  |
| Toxaphene                       | 2017            | Levels lower than detect level | 0 - 0                    | 0    | 3   | ppb   | No        | Runoff / leaching from insecticide used on cotton and cattle.                          |
| Volatile Organic Contaminants   | Collection Date | Highest Level Detected         | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination   |
| 1, 1, 1 - Trichloroethane       | 2016            | Levels lower than detect level | 0 - 0                    | 200  | 200 | ppb   | No        | Discharge from metal degreasing sites and other factories.                             |
| 1, 1, 2 - Trichloroethane       | 2016            | Levels lower than detect level | 0 - 0                    | 3    | 5   | ppb   | No        | Discharge from industrial chemical factories.  |
| 1, 1 - Dichloroethylene         | 2016            | Levels lower than detect level | 0 - 0                    | 7    | 7   | ppb   | No        | Discharge from industrial chemical factories.  |
| 1, 2, 4 - Trichlorobenzene      | 2016            | Levels lower than detect level | 0 - 0                    | 70   | 70  | ppb   | No        | Discharge from textile-finishing factories.  |
| 1, 2 - Dichloroethane           | 2016            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from industrial chemical factories.  |
| 1, 2 - Dichloropropane          | 2016            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from industrial chemical factories.  |
| Benzene                         | 2016            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from factories; leaching from gas storage tanks and landfills.               |
| Carbon Tetrachloride            | 2016            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from chemical plants and other industrial activities.                        |
| Chlorobenzene                   | 2017            | Levels lower than detect level | 0 - 0                    | 100  | 100 | ppb   | No        | Discharge from chemical and agricultural chemical factories.                           |
| Dichloromethane                 | 2017            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from pharmaceutical and chemical factories.                                  |
| Ethylbenzene                    | 2017            | Levels lower than detect level | 0 - 0                    | 0    | 700 | ppb   | No        | Discharge from petroleum refineries.   |
| Styrene                         | 2017            | Levels lower than detect level | 0 - 0                    | 100  | 100 | ppb   | No        | Discharge from rubber and plastic factories; leaching from landfills.                  |
| Tetrachloroethylene             | 2017            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from factories and dry cleaners.   |
| Toluene                         | 2017            | Levels lower than detect level | 0 - 0                    | 1    | 1   | ppm   | No        | Discharge from petroleum factories.  |
| Trichloroethylene               | 2017            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from metal degreasing sites and other factories.                             |
| Vinyl Chloride                  | 2017            | Levels lower than detect level | 0 - 0                    | 0    | 2   | ppb   | No        | Leaching from PVC piping; discharge from plastics factories.                           |
| Xylenes                         | 2017            | Levels lower than detect level | 0 - 0                    | 10   | 10  | ppm   | No        | Discharge from petroleum factories; discharge from chemical factories.                 |
| cis - 1, 2 - Dichloroethylene   | 2017            | Levels lower than detect level | 0 - 0                    | 70   | 70  | ppb   | No        | Discharge from industrial chemical factories.  |
| o - Dichlorobenzene             | 2017            | Levels lower than detect level | 0 - 0                    | 600  | 600 | ppb   | No        | Discharge from industrial chemical factories.  |
| p - Dichlorobenzene             | 2017            | Levels lower than detect level | 0 - 0                    | 75   | 75  | ppb   | No        | Discharge from industrial chemical factories.  |
| trans - 1, 2 - Dichloroethylene | 2017            | Levels lower than detect level | 0 - 0                    | 100  | 100 | ppb   | No        | Discharge from industrial chemical factories.  |

#### Turbidity

|   | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination |
|---|-----------------------------|----------------|-----------|--------------------------------|
| Highest single measurement                  | 1 NTU                       | 0.74           | No        | Soil runoff.                   |
| Lowest monthly percentage (%) meeting limit | 0.3 NTU                     | 99.30%         | No        | Soil runoff.                   |

NOTE: 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.

#### Maximum Residual Disinfectant Level

| Disinfectant Type               | Year | Average Level of Quarterly Data | Lowest Result of Single Sample | Highest Result of Single Sample | MRDL | MRDLG | Units | Source of Chemical                     |
|---------------------------------|------|---------------------------------|--------------------------------|---------------------------------|------|-------|-------|--|
| Chlorine Residual (Chloramines) | 2017 | 3.06                            | 1.1                            | 4.0                             | 4.0  | <4.0  | ppm   | Disinfectant used to control microbes. |
| Chlorine Dioxide                | 2017 | 0                               | 0                              | 0                               | 0.8  | 0.8   | ppm   | Disinfectant.                          |
| Chlorite                        | 2017 | 0                               | 0                              | 0.072                           | 1.0  | N/A   | ppm   | Disinfectant.                          |

NOTE: Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level of between 0.5 (ppm) and 4 parts per million (ppm).

#### 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. |
| Drinking 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 that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this 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.

#### Cryptosporidium and Giardia

| Contaminants    | Collection Date | Highest Level Detected | Range of Levels Detected | Units        | Likely Source of Contamination |
|-----------------|-----------------|------------------------|--------------------------|--------------|--------------------------------|
| Cryptosporidium | 2017            |                        | 0 - 0                    | (Oo) Cysts/L | Human and animal fecal waste.  |
| Giardia         | 2017            | 0                      | 0 - 0                    | (Oo) Cysts/L | Human and animal fecal waste.  |

#### Lead and Copper

| Lead and Copper | Date Sampled | Action Level (AL) | 90th Percentile | # Sites Over AL | Units | Violation | Likely Source of Contamination  |
|-----------------|--------------|-------------------|-----------------|-----------------|-------|-----------|---|
| Copper          | 2017         | 1.3               | 0.37            | 0               | ppm   | No        | Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems. |
| Lead            | 2017         | 15                | 0.52            | 0               | ppb   | No        | Corrosion of household plumbing systems; erosion of natural deposits.                                   |

**ADDITIONAL HEALTH INFORMATION FOR LEAD:** 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. The NTMWD 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, 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>.

**Unregulated Contaminants**

| Contaminants         | Collection Date | Highest Level Detected | Range of Levels Detected | Units | Likely Source of Contamination             |
|----------------------|-----------------|------------------------|--------------------------|-------|--|
| Chloroform           | 2017            | 17.80                  | 5.6 - 17.8               | ppb   | By-product of drinking water disinfection. |
| Bromoform            | 2017            | 1.77                   | 0 - 1.77                 | ppb   | By-product of drinking water disinfection. |
| Bromodichloromethane | 2017            | 16.60                  | 8.93 - 16.6              | ppb   | By-product of drinking water disinfection. |
| Dibromochloromethane | 2017            | 9.78                   | 5.55 - 9.78              | ppb   | By-product of drinking water disinfection. |

**NOTE:** Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

**Secondary and Other Constituents Not Regulated**

| Contaminants              | Collection Date | Highest Level Detected | Range of Levels Detected | Units | Likely Source of Contamination  |
|---------------------------|-----------------|------------------------|--------------------------|-------|---|
| Calcium                   | 2017            | 78.5                   | 47.0 - 78.5              | ppm   | Abundant naturally occurring element.   |
| Chloride                  | 2017            | 108                    | 14 - 108                 | ppm   | Abundant naturally occurring element; used in water purification; by-product of oil field activity. |
| Hardness as Ca/Mg         | 2017            | 164                    | 159 - 164                | ppm   | Naturally occurring calcium and magnesium.  |
| Iron                      | 2017            | 0.3                    | 0.00 - 0.30              | ppm   | Erosion of natural deposits; iron or steel water delivery equipment or facilities.                  |
| Magnesium                 | 2017            | 11.6                   | 4.41 - 11.6              | ppm   | Abundant naturally occurring element.   |
| Manganese                 | 2017            | 0.025                  | 0.0019 - 0.025           | ppm   | Abundant naturally occurring element.   |
| Nickel                    | 2017            | 0.0071                 | 0.0047 - 0.0071          | ppm   | Erosion of natural deposits.  |
| pH                        | 2017            | 8.52                   | 7.85 - 8.52              | units | Measure of corrosivity of water.  |
| Sodium                    | 2017            | 123                    | 46.1 - 123               | ppm   | Erosion of natural deposits; by-product of oil field activity.                                      |
| Sulfate                   | 2017            | 266                    | 47.1 - 266               | ppm   | Naturally occurring; common industrial by-product; by-product of oil field activity.                |
| Total Alkalinity as CaCO3 | 2017            | 110                    | 61 - 110                 | ppm   | Naturally occurring soluble mineral salts.  |
| Total Dissolved Solids    | 2017            | 562                    | 292 - 562                | ppm   | Total dissolved mineral constituents in water.  |
| Total Hardness as CaCO3   | 2017            | 236                    | 124 - 236                | ppm   | Naturally occurring calcium.  |
| Zinc                      | 2017            | 0.02                   | 0.0025 - 0.020           | ppm   | Moderately abundant naturally occurring element used in the metal industry.                         |

**North Texas Municipal Water District Violations Table**

**Bromate**

Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

| Violation Type            | Violation Begin | Violation End  | Violation Explanation   |
|---------------------------|-----------------|----------------|---|
| Monitoring, Routine (DBP) | April 1, 2017   | April 30, 2017 | NTMWD failed to collect the required monthly samples for bromate of the water entering the distribution system during April 2017. This monitoring is required by the Texas Commission on Environmental Quality's "Drinking Water Standards" and the federal "Safe Drinking Water Act," Public Law 95-523. Failure to monitor or monitor inadequately makes it impossible to know if there is bromate in excess of the maximum contaminant level (MCL) requirement of 0.010 mg/l (ppm). Our water system is required to take one bromate sample once each month. Failure to collect all required bromate samples is a violation of the monitoring requirements and we are required to notify you of this violation. The monthly monitoring samples from January - March 2017, and May - December 2017 were collected and test results showed levels lower than detectable. |