

## Water Conservation

The City of Weatherford Water Utilities Department have made changes to the Water Conservation and Drought Contingency Plan. Outdoor watering by automatic sprinkler systems is now limited to twice a week, year-round. The Water Utility took this step to reduce the loss and waste of water and to encourage more efficient outdoor water use. Watering systems are also prohibited between the hours of 10:00 a.m. and 6:00 p.m. daily. The following watering schedule applies to all residential and commercial customers:

- Mondays- No Outdoor Watering
- Tuesdays and Fridays- All Local Government and School District Offices
- Wednesdays and Saturdays- Addresses ending in an even number (0, 2, 4, 6, 8)
- Thursdays and Sundays- Addresses ending in an odd number (1, 3, 5, 7, 9)

To learn more about the City of Weatherford 2015 Water Conservation and Drought Contingency Plan, please visit [www.weatherfordtx.gov/waterconservation](http://www.weatherfordtx.gov/waterconservation), like us on Facebook “Weatherford Water Utilities” or contact (817) 598-4275 for questions.

## Tap vs. Bottled, Rethinking What You Are Drinking

When choosing the water you want to drink, it is often easy to be convinced that bottled water is healthier for you than tap water, but in truth is it? The answer, thanks to a study by the Natural Resources Defense Council (NRDC) is not always. First, approximately 25 percent of bottled water is – in reality – bottled tap water. Additionally, the Food and Drug Administration (FDA) regulates bottled water; however, their testing standards are not as rigorous as the ones required by the US Environmental Protection Agency (EPA) for tap water. Moreover, FDA oversight does not apply to water that is packaged and sold within the same state. According to the NRDC’s report, this leaves approximately 60 -70 percent of bottled water, including the contents of watercooler jugs, free of FDA regulation.

It is estimated that people spend almost 5,000 times more per gallon of bottled water than they would for tap water. For those who get their recommended eight glasses of water a day, you could be saving over \$1,000 annually if you switched to tap water!



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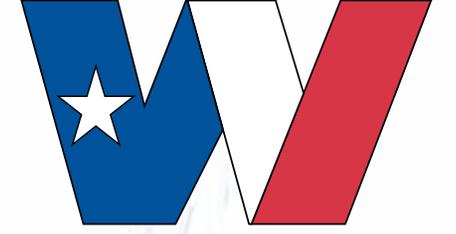
**Community Participation**  
The Weatherford Municipal Utility Board, Administrators, and Water Treatment Professionals will be available for questions regarding water quality issues during the July 28, 2016, Board Meeting. The meeting is scheduled to begin at 12:00 p.m. at City Hall (303 Palo Pinto Street). Please visit our website [weatherfordtx.gov](http://weatherfordtx.gov). Like us on Facebook “Weatherford Water Utilities,” follow us on Twitter @wfordwater, or call Ms. Lydia Ruiz at (817) 598-4275 for more information and/or to confirm meeting date and time.

**En Español**  
Este informe contiene información importante sobre su agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al (817) 598-4275 para hablar con una persona bilingüe en español.



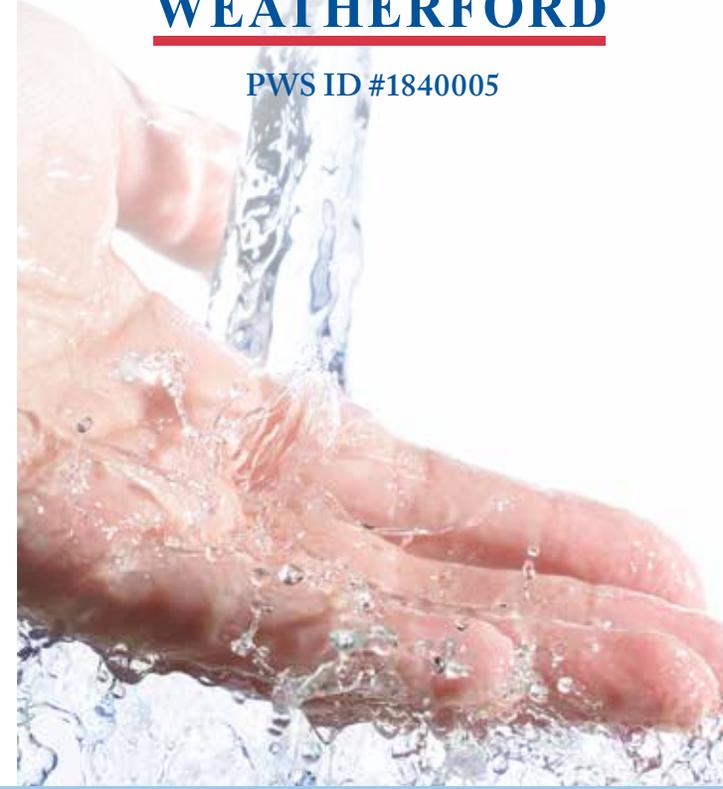
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CITY OF  
WEATHERFORD

PWS ID #1840005



2015  
ANNUAL DRINKING  
WATER QUALITY  
REPORT

## Our Drinking Water Is Regulated

The City of Weatherford is pleased to share this report with you. This report is a summary of the quality of the water we provide our customers. The analysis covers January 1 through December 31, 2015, and was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

## Source 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 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 stormwater 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 stormwater 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 stormwater 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?

The City of Weatherford obtains its water primarily from Lake Weatherford. We also have a secondary source of water – Lake Benbrook. Lake Benbrook's susceptibility is not included in this report. Please call (817) 598-4275 for any questions regarding this assessment.

## 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 City of Weatherford 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 drinking 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

The U.S. EPA Office of Water ([www.epa.gov/ow](http://www.epa.gov/ow)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health.

## Special Notice for the Elderly, Infants, Cancer Patients, and Persons with HIV/AIDS and other Immune System Problems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the **Safe Drinking Water Hotline at (800) 426-4791**.

## Source Water Assessment

A source water assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions.

For more information about your water, please visit the Source Water Assessment Viewer at [www.tceq.texas.gov/gis/swaview](http://www.tceq.texas.gov/gis/swaview). For further details about sources and source water assessments, please visit <http://dww.tceq.texas.gov/DWW/>.

In the water loss audit submitted to the Texas Water Development Board for the time period of January- December 2015, our system lost an estimated 176,806,664 gallons of water. If you have any questions about the water loss audit, please call (817) 598-4275.

## All Drinking Water May Contain Contaminants

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. 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).



| Regulated Substances (Unit)             | Year Tested | Amount Detected | Range of Levels Detected | MCL | MCLG | Violation (Y/N) | Likely Source of Contamination  |
|---|-------------|-----------------|--------------------------|-----|------|-----------------|---|
| Arsenic (ppb)                           | 2015        | 1.1             | 1.1-1.1                  | 10  | 0    | No              | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics; production wastes                   |
| Barium (ppm)                            | 2015        | 0.055           | 0.055-0.055              | 2   | 2    | No              | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits                                |
| Chromium (ppb)                          | 2015        | 1.2             | 1.2-1.2                  | 100 | 100  | No              | Discharge from steel and pulp mills; erosion of natural deposits  |
| Cyanide (ppb)                           | 2015        | 105             | 105-105                  | 200 | 200  | No              | Discharge from plastic and fertilizer factories; Discharge from steel/metal factories                                     |
| Fluoride (ppm)                          | 2015        | 0.566           | 0.566-0.566              | 4   | 4    | No              | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Haloacetic Acids (HAAs) (ppb)           | 2015        | 28              | 13-42                    | 60  | NA   | No              | By-product of drinking water disinfection   |
| Nitrate (ppm)                           | 2015        | 0.081           | 0.081-0.081              | 10  | 10   | No              | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Selenium (ppb)                          | 2015        | 1               | 1.0-1.0                  | 50  | 50   | No              | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines                          |
| Total Trihalomethanes (TTHMs) (ppb)     | 2015        | 47              | 26.3-69.5                | 80  | NA   | No              | By-product of drinking water disinfection   |
| <sup>1</sup> Total Organic Carbon (ppm) | 2015        | 6.96            | 6.96-6.96                | NA  | TT   | No              | Naturally present in the environment  |
| Chlorite (ppm)                          | 2015        | 0.75            | 0.36-0.75                | 1   | 0.8  | No              | By-product of drinking water disinfection   |

|                   | MCLG | Total Coliform MCL         | Highest No. of Positive | Fecal Coliform or E. Coli MCL | Total No. of Positive E. Coli or Fecal Coliform Samples | Violation | Likely Source of Contamination       |
|-------------------|------|----------------------------|-------------------------|-------------------------------|---|-----------|--------------------------------------|
| Coliform Bacteria | 0    | 1 positive monthly sample. | 1                       |                               | 0   | No        | Naturally present in the environment |

| Regulated Substances (Unit)  | Year Tested | Highest Single Measurement | Lowest of Monthly % of Samples ≤0.3 NTU | MCL | MCLG | Violation (Y/N) | Likely Source of Contamination |
|------------------------------|-------------|----------------------------|---|-----|------|-----------------|--------------------------------|
| <sup>2</sup> Turbidity (NTU) | 2015        | 0.45                       | 98%                                     | TT  | NA   | No              | Soil runoff                    |

| Radioactive Contaminants (Unit) | Year Tested | Highest Single Measurement | Range of Levels Detected | MCL | MCLG | Violation (Y/N) | Likely Source of Contamination |
|---------------------------------|-------------|----------------------------|--------------------------|-----|------|-----------------|--------------------------------|
| Radium 226/228 (pCi/L)          | 2011        | 1.0                        | 1.0-1.0                  | 5   | 0    | N               | Erosion of natural deposits    |

| Lead and Copper Contaminants (Unit) | Year Tested | 90th Percentile | # of sites exceeding AL | MCLG | AL  | Violation (Y/N) | Likely Source of Contamination   |
|-------------------------------------|-------------|-----------------|-------------------------|------|-----|-----------------|--|
| Copper (ppm) (90th percentile)      | 2013        | 0.0808          | 0                       | 1.3  | 1.3 | N               | Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems |
| Lead (ppb) (90th percentile)        | 2013        | 1.34            | 0                       | 0    | 15  | N               |  |

| Secondary Substances (Unit) | Year Tested | Amount Detected | Range of Levels Detected | SMCL | MCLG | Violation (Y/N) | Likely Source of Contamination  |
|-----------------------------|-------------|-----------------|--------------------------|------|------|-----------------|---|
| Chloride (ppm)              | 2015        | 29.5            | 29.5-29.5                | 300  | N/A  | N               | Abundant; naturally occurring element; used in water purification; by-product of oil field activity |

|                              |      |      |           |      |     |   |   |
|------------------------------|------|------|-----------|------|-----|---|---|
| Sulfate (ppm)                | 2015 | 33.9 | 33.9-33.9 | 300  | N/A | N | Naturally occurring; common industrial by-product; by-product of oil field activity |
| Total Dissolved Solids (ppm) | 2015 | 216  | 216-216   | 1000 | N/A | N | Total dissolved mineral constituents in water                                       |

| <sup>3</sup> Unregulated Substances and other Substances (Unit) | Year Tested | Amount Detected | Range of Levels Detected | MCL | MCLG | Likely Source of Contamination                                 |
|---|-------------|-----------------|--------------------------|-----|------|--|
| Bromodichloromethane (ppb)                                      | 2015        | 18.8            | 18.8-18.8                | 100 | 0    | By-product of drinking water disinfection                      |
| Bromoform (ppb)   | 2015        | Not Detected    | Not Detected             | 100 | 0    |  |
| Chloroform (ppb)  | 2015        | 30              | 30-30                    | 100 | 70   |  |
| Dibromochloromethane (ppb)                                      | 2015        | 8.02            | 8.02-8.02                | 100 | 60   |  |
| Hardness as Ca/Mg (ppm)   | 2015        | 118             | 118-118                  | NA  | NA   | Naturally occurring Calcium and Magnesium                      |
| Sodium (ppm)  | 2015        | 29.5            | 29.5-29.5                | NA  | NA   | Erosion of natural deposits; by-products of oil field activity |
| Total Alkalinity as CaCO3 (ppm)                                 | 2015        | 106             | 106-106                  | NA  | NA   | Naturally occurring soluble mineral salts                      |

| Initial Distribution System Evaluation Results (Unit) | Year Tested | Amount Detected | Range of Levels Detected | Likely Source of Contamination   |
|---|-------------|-----------------|--------------------------|----------------------------------|
| Haloacetic Acids [HAAs] (ppb)                         | 2008        | 19.45           | 17.10-21                 | By-product of water disinfection |
| Total Trihalomethanes [TTHMs] (ppb)                   | 2008        | 39.76           | 36.7-42.40               |                                  |

1. 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 (THM) and haloacetic acids (HAA), which are reported elsewhere in this report.

2. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

3. Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in this table. For additional information and data, visit <http://www.epa.gov/safewater/ucmr/ucmr2/index.html> or call the Safe Drinking Water Hotline at (800) 426-4791.

## Definitions

**90th Percentile**- 90% of samples are equal to or less than the number in the chart.

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

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

**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. Secondary MCLs are unenforceable guidelines for aesthetic quality of 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. MCLGs allow for a margin of safety.

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

**NA** – not applicable.

**TT** – treatment technique.

**NTU** – Nephelometric Turbidity Units.

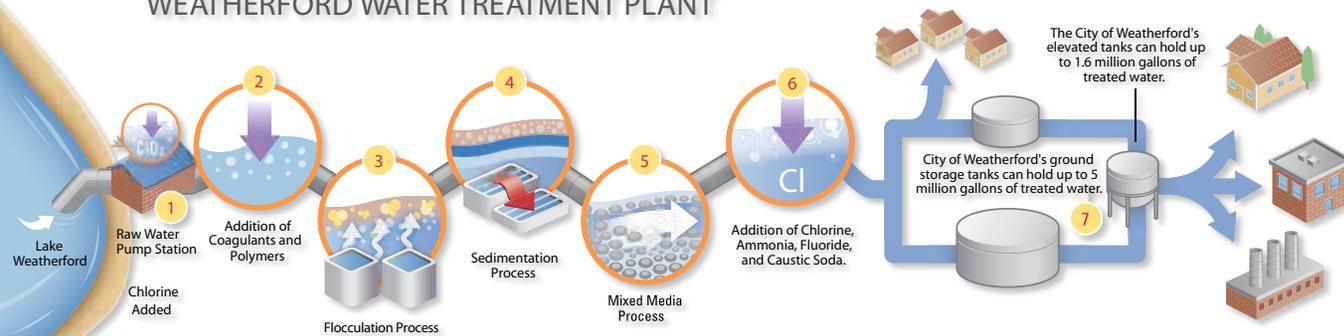
**Parts per billion (ppb)** – micrograms per liter (µg/L) or one ounce in 7,800,000 gallons of water.

**Parts per million (ppm)** – milligrams per liter (mg/L) or one ounce in 7,800 gallons of water.

**pCi/L** – picocuries per liter (a measure of radioactivity)

**Secondary Maximum Contaminants Level (SMCL)** – non-mandatory water quality standards that are not enforced by the EPA. They are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health at the SMCL.

## WEATHERFORD WATER TREATMENT PLANT



1. Water is pumped from Lake Weatherford to the water treatment plant. As the water enters the plant, chlorine dioxide is added to oxidize the organics in the raw water. This helps to control taste and odors, and to enhance the disinfection process.
2. Our water treatment plant uses two forms of water treatment. Our membrane system and the trident system. Our membrane system uses small fibers to filter out particles. After filtration, this water goes to step #6 for final disinfection. Our trident system uses coagulants and polymers for treatment. Coagulants and polymers are added to attract small particles together to form larger particles (floc), which are more readily removed during sedimentation and filtration processes. Dosages of the coagulant and polymer are varied according to the purity of the untreated water.
3. The coagulant and polymer continues to mix in the water and create floc as the water makes its way through the flocculation process and into the sedimentation process.
4. The larger floc particles, and other existing solids, settle out as the water slowly makes its way through the sedimentation process on its way to the mixed media process.

5. The water then flows through mixed media process (anthracite, sand, and garnet), which filter out the remaining unsettled particulate matter.
6. Filtered water enters the clear well tank which provides contact time from the post-chlorinated water. This allows for disinfection of any bacterial contamination in the water and provides a chlorine residual for the distribution system. Fluoride, ammonia, caustic soda, and chlorine are added in accordance with the Texas Commission on Environmental Quality (TCEQ). Ammonia is added to the water to create chloramines. Chloramines are created when ammonia and chlorine combine in a chemical reaction. Chloramines are used as the primary disinfectant in our water system. After the clear well tank, the water is of excellent quality and is ready for distribution and use.
7. The water is then pumped to the city's distribution and storage system. The water is distributed throughout the City of Weatherford for residential, business, and industrial use. The entire process is continual monitored and tested in order to ensure that the process and the water quality meets or exceeds state and federal regulations.