



**City of Watauga 2015 Drinking Water Quality Report  
Public Works Department (817) 514-5843  
Our Drinking Water Meets or Exceeds All Federal (EPA) Requirements**

The City of Watauga is dedicated to providing safe and reliable drinking water to its customers. This report is a summary of the quality of the water the City of Watauga provides our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the following information. We hope this information helps you become more knowledgeable about what's in your drinking water.

**Special Notice for the ELDERLY, INFANTS,  
CANCER PATIENTS, People with HIV/AIDS  
or Other Immune Problems:**

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

**City of Watauga Drinking Water Quality**

The City of Watauga drinking water is regulated by the Texas Commission on Environmental Quality (TCEQ). The City did not list any water quality violations on the 2015 Water Quality Report because there were none. The City of Watauga has a Superior Water System rating as designated by TCEQ since 1999. Inspections on the water system are made by TCEQ. Water quality is monitored by the City's Utility Division on a monthly basis. For more information, call (817) 514-5843.

**En Español**

Este reporte incluye informacion importante sobre la agua para tomar. Si tiene preguntas o discusiones sobre este reporte en español, favor de llamar al tel. (817) 514-5838 para hablar con una persona bilingue en español.

**Public Participation Opportunity**

<b>Date:</b>	<b>July 7, 2016</b>
<b>Time:</b>	<b>1:00 p.m. – 4:00 p.m.</b>
<b>Location:</b>	<b>Public Works Department</b>
<b>Phone:</b>	<b>(817) 514-5843</b>

**Where do we get our drinking water?**

Our drinking water is obtained from surface water resources. The sources of our drinking water come from Fort Worth. They include Lake Bridgeport, Eagle Mountain Lake, Lake Worth, Lake Benbrook, Cedar Creek Reservoir and Richland-Chambers Reservoir. TCEQ will be reviewing all of Texas' drinking water sources. It is important to protect your drinking water by protecting your water source.

**About the following pages**

The pages that follow list all of the federally regulated or monitored constituents, which have been found in your drinking water. U.S. EPA requires water systems to test up to 97 constituents.

**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 EPA. These constituents are not causes for health concerns. Therefore, secondary constituents are not required to be reported in this document, but they may greatly affect the appearance and taste of your water.

**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 Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791.

## Water Sources

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. It can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment includes: microbes, inorganic contaminants, and organic chemical contaminants.

## Definitions and Abbreviations Used in Tables

The following definitions should help in understanding the abbreviations used in the charts.

**Action Level** - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

**MCL – Maximum Contaminant Level** - 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.

**MRDL - Maximum Residual Disinfectant Level** - 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.

**MRDLG – Maximum Residual Disinfectant Level Goal** – The level of a drinking water disinfectant below, which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**NTU** – Nephelometric Turbidity Units are used to measure water turbidity or clarity.

**PCi/L** - Picocuries per liter is a measure of radioactivity in water.

**ppb** – Parts per billion; equivalent to micrograms per liter. (mg/L)

**ppm** – Parts per million; equivalent to milligrams per liter. (mg/L)

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

**MCLG – Maximum Contaminant Level Goal** - 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.

**ND - None Detected.**

## TCEQ Assessed Source Water

The Texas Commission on Environmental Quality conducted a source water assessment of our water supply lakes. The Fort Worth water system was determined to be susceptible to some contaminants, using criteria developed by TCEQ in its federally approved source water assessment program.

The assessment report consists of maps showing the assessment area, an inventory of known land use activities of concern and documentation of specific contaminants of concern. This report is available by contacting the Fort Worth Water Department office at 1000 Throckmorton St. in Fort Worth Texas or the Trinity River Authority at 11201 Trinity Boulevard in Euless, Texas.

Fort Worth uses surface water from – Lake Bridgeport, Eagle Mountain Lake, Lake Worth, Benbrook Lake, Cedar Creek Reservoir, Richland Chambers Reservoir and the Clear Fork Trinity River. Fort Worth owns Lake Worth. The U.S. Army Corps of Engineers is responsible for Benbrook Lake. The other four lakes are owned and operated by Tarrant Regional Water District (TRWD).

Fort Worth monitors water quality in Lake Worth and participates with TRWD to ensure the other lakes are regularly tested.

TCEQ is currently updating the assessments.

## What's in the water?

The following charts list the contaminants that require monitoring or are regulated and were detected in Fort Worth and Watauga water. The data included is from calendar year 2015 unless otherwise indicated.

## CITY OF WATAUGA 2015 DATA

### Regulated at the Customer's Tap

Contaminant	90 <sup>th</sup> percentile values	# of Sites exceeding Action Level	MCL	MCLG	Common Sources of Substance in Drinking Water
Lead 5 (ppb)	0.00117	0	Action Level=.015	N/A	Corrosion of household plumbing systems; erosion of natural deposits
Copper 5 (ppm)	0.650	1	Action Level=1.3	N/A	Corrosion of household plumbing systems; erosion of natural deposits

90th percentile value: 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an "average" value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps. The test results shown above are from 2015. The next monitoring will occur in 2016.

### Regulated in the Distribution System

Contaminant	Unit of Measure	Highest Allowed (MCL)	Watauga's Water	Range of Detections	Ideal Goal (MCLG)	Common Sources of Substance in Drinking Water
Haloacetic Acids (HAA5)	ppb	60	6.7	2.6 to 12.4	N/A	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	ppb	80	21.48	4.1 to 82.3	N/A	By-product of drinking water disinfection
Total Coliforms	.003% of positive samples	4% of monthly samples	Present in Less than 1% Of monthly Samples	0 to Less than 1%	0	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E Coli only come from human and animal fecal waste

### Maximum Residual Disinfection Level

Year	Constituent	Average Level	Range of Detection (low-high)	MRDL	MCLG	Units	Source
2015	Chloramines	2.25	1.71 to 2.62	4	4	ppm	Disinfectant used to control microbes

**“City of Watauga’s Unregulated Contaminant Monitoring Rule (UCMR 3) Information”**  
**Data gathering to determine if more regulation needed**

Water utilities in the United States monitor for more than 100 contaminants and must meet 91 regulations for water safety and quality.

But should other contaminants be regulated? The 1996 Safe Drinking Water Act amendments require that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitoring by public water systems. This monitoring provides a basis for future regulatory actions to protect public health.

The third Unregulated Contaminant Monitoring Rule includes assessment for 21 chemical contaminants, 7 hormones and two viruses. The virus testing did not impact the City of Watauga. This testing was limited to small groundwater systems that do not disinfect. UCMR benefits the environment and public health by providing EPA and other interested parties with scientifically valid data on the occurrence of these contaminants in drinking water.

Health information is necessary to know whether these contaminants pose a health risk. Public water systems will sample for these contaminants for four consecutive quarters from 2013 to 2015. City of Watauga's sampling occurred from February 2014 through November 2014.

<b>UCMR 3</b>					
<b>Contaminant</b>	<b>Unit of Measure</b>	<b>Range of Detections</b>	<b>2014 Level</b>	<b>MRL</b>	<b>Common Sources of Substances</b>
Vanadium	ppb	0.56 to 1.5	1.5	0.2	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Molybdenum	ppb	1.6 to 1.9	1.9	1	Naturally-occurring element found in ores and present in plants, animals and bacterial; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	ppb	264 to 314	314	0.3	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate class of cathode-ray tube televisions to block x-ray emissions
Chromium <sup>1</sup> Chromium-6	ppb ppb	<0.2 to 0.21 <0.03 - 0.0528	0.21 0.028	0.2	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.

**Total Chromium, the sum of chromium in all its valence states, is already regulated in drinking water. As part of UCMR 3, EPA requires testing for Total Chromium in the same samples used to test for Chromium 6, which is on the UCMR 3 list. The value differs from what is listed in the other table because of different sampling periods. The MCL for EPA's current total chromium regulation was determined based upon the health effects of Chromium 6.**

### UCMR 3 contaminants not detected

#### Chemicals

1,2,3-trichloropropane  
 1,3-butadiene  
 chloromethane (methyl chloride)  
 1,1-dichloroethane  
 bromomethane  
 chlorodifluoromethane (HCFC-22)  
 Bromochloromethane (Halon 1011)  
 1,4-dioxane  
 cobalt  
 perfluorooctanesulfonic acid (PFOS)  
 perfluorooctanoic acid (PFOA)  
 perfluorononanoic acid (PFNA)  
 chlorate

perfluorohexanesulfonic acid (PFHxS)  
 perfluoroheptanoic acid (PFHpA)  
 perfluorobutanesulfonic acid (PFBS)

#### Hormones

17-β-estradiol  
 17-α-ethynylestradiol  
 estriol  
 equilin  
 estrone  
 testosterone  
 4-androstene-3,17-dione

### 2015 Water loss Data

**The City of Watauga had an estimated water loss of 40,869,972 gallons (6.17) % of water purchased. This loss is contributed to leaks, breaks, theft and inaccuracy of meters.**

## Trinity River Authority of Texas Tarrant County Water Supply Project – Regulated Contaminants

### Inorganic Contaminants

Year or Range	Contaminant	Collection Date	Highest Single Sample	Range of Levels Detected	MCL	MCLG	Unit of Measure	Source of Contaminant
2015	Barium	6/15/2015	0.041	0.041 – 0.041	2	2	ppm	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits
2015	Fluoride	6/15/2015	0.24	0.24 – 0.24	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2015	Nitrate	6/15/2015	0.324	0.324 – 0.324	10	10	ppm	Runoff from fertilizer use; leaking from septic tanks, sewage, erosion of natural deposits
Year or Range	Contaminant	Highest Single Sample	Range of Levels Detected		MCL	MCLG	Unit of Measure	Source of Contaminant
2015	Bromate	9.29	<5 – 9.29		10*	0	ppb	By-product of drinking water ozonation

\*Compliance is based on Running Average of monthly averages for Bromate at the end of each quarter, which was less than the 5 ppb for each quarter in 2015

**Turbidity** is a measure of the cloudiness of water. It is a good indicator of the effectiveness of the filtration system.

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Units of Measure	Source of Contaminant
2015	Turbidity	0.26	100%	0.3	NTU	Soil runoff

### Fort Worth Water Quality Data Report 2015

Contaminant	Measure	MCL	2015 Level	Range of Detects	MCLG	Common Sources of Substance in Drinking Water
Barium 1	ppm	2	0.71	0.05 to 0.07	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beta particles & Photon emitters 2	pCi/L	50	5.6	4 to 5.6	N/A	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photon and beta radiation
Flouride	ppm	4	0.56	0.12 to 0.56	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	0.67	0.2 to 0.67	10	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Nitrite <sup>3</sup> (measured as Nitrogen)	ppm	1	0.04	0 to 0.04	1	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits

Bromate	ppb	10	6.22	0 to 6.22	0	By-product of drinking water disinfection
Haloacetic Acids	ppb	60	15.6	8.8 to 15.6	N/A	By-product of drinking water disinfection
Total Trihalomethanes	ppb	80	27.8	12.4 to 27.8	N/A	By-product of drinking water disinfection
Total Coliforms (including fecal coliform & E Coli)	% of positive samples	Presence in 5% of monthly samples	Presence in 2% of monthly samples	0 to 2%	0	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E Coli only come from human and animal fecal waste.
Turbidity 1	NTU	TT	0.50 Highest single result	N/A	N/A	Soil runoff
			98.9% Lowest monthly % of samples ≤0.3 NTU			
<b>Contaminants</b>	<b>High</b>	<b>Low</b>	<b>Average</b>	<b>MCL</b>	<b>MCLG</b>	<b>Common Sources of Substance in Drinking Water</b>
Total Organic Carbon	1	1	1	TT=% removal	N/A	Naturally occurring

1 Because Fort Worth historically has had low levels of metals in its water, the Texas Commission on Environmental Quality (TCEQ) requires this monitoring occur only once every six years. The test results shown above are from 2010. The next monitoring will occur in 2016.

2 Because Fort Worth historically has had low levels of radionuclides in its water, TCEQ requires this monitoring occur only once every three years. The test results shown above are from 2013. The next monitoring will occur in 2016.

3 Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

4 Total Organic Carbon is used to determine disinfection by-product precursors. Fort Worth was in compliance with all monitoring and treatment technique requirements for disinfection by-product precursors.

### Unregulated Contaminants

Contaminant	Unit	Range of Detections	2015 Level	MCL	MCLG	Common Sources of Substance in Drinking Water
Chloral Hydrate	ppb	0.30 to 0.67	0.67	Not Regulated	None	By-product of drinking water disinfection
Bromoform	ppb	1.5 to 9.9	9.9	Not Regulated	None	By-product of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Bromodichloromethane	ppb	2.6 to 8.9	8.9	Not Regulated	None	
Chloroform	ppb	2.8 to 15.2	15.2	Not Regulated	None	
Dibromochloromethane	ppb	1.9 to 9.0	9.0	Not Regulated	None	
Dichloroacetic Acid	ppb	7.3 to 9.3	9.3	Not Regulated	None	By-product of drinking water disinfection; not regulated individually; included in Haloacetic
Trichloroacetic Acid	ppb	1.2 to 6.8	6.8	Not Regulated	None	Acids

### Microorganism testing shows low detections in raw water

Tarrant Regional Water District monitors the raw water at all intake sites for Cryptosporidium, Giardia Lamblia and viruses. The source is human and animal fecal waste in the watershed. The 2015 sampling showed low level detections of Cryptosporidium, Giardia Lamblia and viruses that are common in surface water. The table below indicates when detections were found in each raw water source.

Cryptosporidium and Giardia Lamblia monitoring is done monthly. Virus monitoring is performed four times a year in January, March, July and September. Viruses are treated through disinfection processes. Cryptosporidium and Giardia Lamblia are removed through a combination of disinfection and / or filtration.

Intake Location	Cryptosporidium	Giardia Lamblia	Adenovirus	Enterovirus	Astrovirus	Rotavirus
Richland Chambers Reservoir	Not detected	Not detected	January	Not detected	Not detected	Not detected
Cedar Creek Lake	Not detected	Not detected	January, March	Not detected	Not detected	Not detected
Lake Benbrook	Not detected	Not detected	January, March	Not detected	Not detected	Not detected
Eagle Mountain Lake	June	June	January	September	Not detected	Not detected
Lake Worth	Not detected	Not detected	January, March	Not detected	Not detected	Not detected
Clearfork of Trinity River	Not detected	June	January, March	Not detected	Not detected	Not detected

## **TCEQ accesses raw water supplies for susceptibility**

Fort Worth uses surface water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir, Lake Benbrook and the Clear Fork Trinity River.

Fort Worth owns Lake Worth. The U.S. Army Corps of Engineers is responsible for Benbrook Lake. The other four lakes are owned and operated by Tarrant Regional Water District.

The Texas Commission on Environmental Quality completed an assessment of Fort Worth's source waters. TCEQ classified the risk to our source waters as high for most contaminants.

High susceptibility means there are activities near the source water or watershed make it very likely that chemical constituents may come into contact with the source water. It does not mean that there are any health risks present.

Tarrant Regional Water District, from which Fort Worth purchases its water, received the assessment reports.

For more information on source water assessments and protection efforts at our system, contact Stacy Walters at 817-392-8203.

Further details about the source-water assessments are available at [dww2.tceq.texas.gov/DWW/JSP/SWAP.jsp?tinwsys\\_is\\_number=5802&tinwsys\\_st\\_code=TX&wsnumber=TX2200012%20%20%20&DWWState=TX](http://dww2.tceq.texas.gov/DWW/JSP/SWAP.jsp?tinwsys_is_number=5802&tinwsys_st_code=TX&wsnumber=TX2200012%20%20%20&DWWState=TX).