



**City of Watauga 2017 Drinking Water Quality Report
Public Works Department (817) 514-5843**

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.

Public Participation Opportunity

Date:	July 5, 2018
Time:	1:00 - 4:00 pm
Location:	Public Works
Phone:	(817) 514-5843

**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 2017 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.

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

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).

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, and can pick up substances resulting from the presence of animals or from human activity.

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 City of 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. The Texas Commission on Environmental Quality (TCEQ) completed an assessment of the Fort Worth's source waters. TCEQ classified the risk to our source waters as highly susceptible to some contaminants, which means there are activities near the source water or watershed that make it very likely chemical constituents may come into contact with the source water. It does not mean that there are any health risks present.

The Trinity River Authority (TRA) uses surface water from Lake Arlington. A Source Water Susceptibility Assessment for your drinking water source is currently being updated by the Texas Commission on Environmental Quality (TCEQ). 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.

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. The report is available by contacting the Fort Worth Water Department office at 1000 Throckmorton Street in Fort Worth, Texas or the Trinity River Authority at 11201 Trinity Boulevard in Euless, Texas.

Further details about sources and source water assessments are available in Drinking Water Watch at:
<http://dww.tceq.state.tx.us/DWW/>.

CITY OF WATAUGA 2017 DATA

2017 Consumer Confidence Report for Public Water System CITY OF WATAUGA

Definitions and Abbreviations: The following tables contain 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.

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

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 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.

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 level goal or 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 contaminants.

MFL	million fibers per liter (a measure of asbestos)
mrem:	millirems per year (a measure of radiation absorbed by the body)
na:	not applicable.
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.
ppq	parts per quadrillion, or picograms per liter (pg/L)
ppt	parts per trillion, or nanograms per liter (ng/L)

Information about your Drinking Water

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.

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>.

What's in the water?

The following charts list the contaminants that require monitoring or are regulated and were detected in Watauga and Fort Worth water. The data included is from calendar year 2017 unless otherwise indicated.

Watauga Water Quality Data Report 2017

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.	1	0	0	N	Naturally present in the environment.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/13/2016	1.3	1.3	0.49	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	9/13/2016	0	.015	0	0	ppb	N	Corrosion of household plumbing systems: erosion of natural deposits

2017 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2017	12	3.8 - 16	No goal for the total	60	ppb	N	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'

Total Trihalomethanes	2017	16	4.9 - 35.6	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
------------------------------	------	----	------------	-----------------------	----	-----	---	--

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

Inorganic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2017	1	0.259 - 0.734	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	2017	0.306	0.194 - 0.306	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chloramines	2017	2.44	0.57-3.2	4	4	ppm	N	Water additive used to control microbes.

Other explanations

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

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

The City of Watauga did not have to perform a Level 1 or Level 2 assessment in the year 2017

**“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.

UCMR 3					
Contaminant	Unit of Measure	Range of Detections	2014 Level	MRL	Common Sources of Substances
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 ¹ 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	perfluorohexanesulfonic acid (PFHxS)
1,3-butadiene	perfluoroheptanoic acid (PFHpA)
chloromethane (methyl chloride)	perfluorobutanesulfonic acid (PFBS)
1,1-dichloroethane	
bromomethane	
chlorodifluoromethane (HCFC-22)	
Bromochloromethane (Halon 1011)	
1,4-dioxane	
cobalt	
perfluorooctanesulfonic acid (PFOS)	
perfluorooctanoic acid (PFOA)	
perfluorononanoic acid (PFNA)	
chlorate	

Hormones

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

2017 Water loss Data

The City of Watauga had an estimated water loss of 27,973,128 gallons (4.15) % 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
2017	Barium	5/11/2017	0.046	0.046-0.046	2	2	ppm	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits
2017	Fluoride	5/11/2017	0.714	0.714-0.714	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2017	Nitrate	5/11/2017	0.145	0.145-0.145	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
2017	Bromate	<5	<5 – <5		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 2017.

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	% of Samples \leq 0.3 NTU	Range of Levels Detected	Units of Measure	Source of Contaminant
2017	Turbidity	0.22	100	0.12-0.22	NTU	Soil runoff

Fort Worth Water Quality Data Report 2017

Contaminant	Measure	MCL	2017 Level	Range of Detects	MCLG	Common Sources of Substance in Drinking Water
Barium 1	ppm	2	0.08	0.06 to 0.08	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beta particles & Photon emitters 2	pCi/L	50	5.6	4.4 to 5.6	0	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
Fluoride	ppm	4	0.66	0.32 to 0.66	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	0.76	0.13 to 0.76	10	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Nitrite ³ (measured as Nitrogen)	ppm	1	0.03	0.01 to 0.03	1	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Bromate	ppb	10	2	0 to 13	0	By-product of drinking water disinfection
Alpha Particles	pCi/L	15	2	2-2	N/A	Erosion of natural deposits of certain materials that are radioactive and may emit forms of radiation known alpha radiation.
Cyanide	ppb	200	57.0	0 – 57.0	200	Discharge from plastic fertilizer factories; discharge from steel and metal factories.
Arsenic	ppb	10	2	0 to 2	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste.
Turbidity 1	NTU	TT	0.06 Highest single result	N/A	N/A	Soil runoff
			99.8% Lowest monthly % of samples ≤0.3 NTU			
Contaminants	High	Low	Average	MCL	MCLG	Common Sources of Substance in Drinking Water
Total Organic Carbon	1	1	1	TT=% removal	N/A	Naturally occurring

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	2017 Level	MCL	MCLG	Common Sources of Substance in Drinking Water
Chloral Hydrate	ppb	0.18 to 0.70	0.70	Not Regulated	None	By-product of drinking water disinfection
Bromoform	ppb	1.19 to 5.83	5.83	Not Regulated	None	By-product of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Bromodichloromethane	ppb	3.37 to 7.81	7.81	Not Regulated	None	
Chloroform	ppb	2.58 to 7.96	7.96	Not Regulated	70	
Dibromochloromethane	ppb	4.33 to 8.51	8.51	Not Regulated	60	
Dichloroacetic Acid	ppb	4.70 to 8.60	8.60	Not Regulated	None	By-product of drinking water disinfection; not regulated individually; included in Haloacetic acids
Monochloroacetic Acid	ppb	0 to 0	0	Not Regulated	None	
Trichloroacetic Acid	Ppb	0 to 1.60	1.60	Not Regulated	None	
Monobromoacetic Acid	ppb	1.60 to 3.10	3.10	Not Regulated	None	
Dibromoacetic Acid	ppb	11.9 to 15.3	15.3	Not Regulated	None	

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 2017 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
Richland Chambers Reservoir	Not detected	Not detected	Not detected	Not detected
Cedar Creek Lake	Not detected	March	Not detected	Not detected
Lake Benbrook	Not detected	May	Not detected	Not detected
Eagle Mountain Lake	Not detected	January	Not detected	Not detected
Lake Worth	Not detected	January	Not detected	Not detected
Clearfork of Trinity River	Not detected	January, February, April, May, June	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.