

Trophy Club Municipal Utility District No. 1

Public Water System ID No. TX0610018

2015 Annual Drinking Water Quality Report

Consumer Confidence Report June 2016

This information is provided to you by: Trophy Club Municipal Utility District No. 1
100 Municipal Drive, Trophy Club, Texas 76262, Phone: (682) 831-4600
District Contact: Jennifer McKnight, General Manager

Special Population Advisory

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* are available from the Safe Drinking Water Hotline at (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. 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, and agricultural livestock operations.
- 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 and 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.

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water we provide 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 pages. We hope this information helps you become more knowledgeable about what is in your drinking water. Should you have questions or need additional copies of this report, please call the District office at (682) 831-4600. The report is also available on our website at www.tcmud.org.

Public Participation Opportunities

Date: **July 19, 2016**
Time: **6:00 p.m.**
Location: **Score Administration Building
100 Municipal Drive
Trophy Club, TX 76262**

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. (682) 831-4600 para hablar con una persona bilingüe en español.

Where Do We Get Our Drinking Water?

Our drinking water is obtained from both surface and groundwater sources. Surface water is purchased from the City of Fort Worth and its sources are Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir, and the Clear Fork Trinity River (from Lake Benbrook). Groundwater sources are from four wells including three from the Paluxy Aquifer and one from the Trinity Aquifer. The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your drinking water sources and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this report. 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 on Texas Drinking Water Watch at <http://dww2.tceq.texas.gov/DWW/>. For more information on source water assessments and protection efforts at our system, contact Jennifer McKnight at (682) 831-4600.

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. In order to ensure tap water is safe to drink, the EPA and TCEQ prescribe 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Water Quality Data

The table in this report lists all the drinking water contaminants we detected during tests conducted from the previous calendar year, unless otherwise noted. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Therefore, some of the data, though representative of the water quality, is more than one year old.

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 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.

About The Following Pages

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The United States Environmental Protection Agency (EPA) requires water systems to test up to 97 constituents. Please note that not all constituents are required to be sampled every year. Only the most recent year for sampling of a constituent is included in the report.

Definitions

Action Level (AL): 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.

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.

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

Abbreviations

MFL - million fibers per liter (a measure of asbestos)

N/A - not applicable

NTU - Nephelometric Turbidity Units

ppq - parts per quadrillion, or picograms per liter

ppt - parts per trillion, or nanograms per liter

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

ppm - parts per million, or milligrams per liter (mg/l)

ppb - parts per billion, or micrograms per liter (ug/l)

mrem/yr – millirems per year

ND – (not-detectable) lab analysis indicates not present

UMHO/CM - micromhos

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y or N)	Source of Disinfectant
2015	Chloramine Residual (Total Chlorine)	2.5	0.8	3.7	4.0	<4.0	ppm	N	Disinfectant used to control microbes.

Disinfection By-Products

Year	Contaminant	Highest Level Detected	Range of Levels Detected	MCL	Unit of Measure	Violation (Y or N)	Source of Contaminant
2015	HAA5 Total Haloacetic Acids	9.0	5.2 – 14.4	60	ppb	N	Byproduct of drinking water disinfection.
2015	Total Trihalomethanes	16.0	4.16 – 38.1	80	ppb	N	Byproduct of drinking water disinfection.

***Highest level detected is based on a running annual average calculated from quarterly samples as required by TCEQ.**

Organic Contaminants

TESTING WAIVED, NOT REPORTED, OR NONE DETECTED

Radioactive Contaminants

Year	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation (Y or N)	Source of Contaminant
2013	Combined Radium (-226 & -228)	1.0	1.0 – 1.0	0	5	pCi/L	N	Erosion of natural deposits.
2013	Gross Alpha (including Radon & Uranium)	2.0	2.0 – 2.0	0	15	pCi/L	N	Erosion of natural deposits.
2013	Beta/Photon Emitters	6.3	6.3 – 6.3	0	50	pCi/L	N	Decay of natural and man-made deposits.

Inorganic Contaminants

Year	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation (Y or N)	Source of Contaminant
2011	Antimony	ND	0 - 0	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
2011	Arsenic	3.51	3.51 – 3.51	0	10	ppb	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
2012	Asbestos	ND	ND	7	7	MFL	N	Decay of asbestos cement water mains; erosion of natural deposits.
2011	Barium	0.0615	0.0615 – 0.0615	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2011	Beryllium	ND	0 - 0	4	4	ppb	N	Discharge from metal refineries and coal burning factories; discharge from electrical, aerospace, and defense.
2011	Cadmium	ND	0 - 0	5	5	ppb	N	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries.
2011	Chromium	2.63	2.63 – 2.63	100	100	ppb	N	Discharge from steel and pulp mills; erosion of natural deposits.
2014	Cyanide	35.5	35.5 – 35.5	200	200	ppb	N	Discharge plastic and fertilizer factories; discharge from steel/metal factories.
2014	Fluoride	0.468	0.468 – 0.468	4	4	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2015	Nitrate * (measured as nitrogen)	0.355	0.355 – 0.355	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2015	Nitrite	ND	0 – 0	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2011	Selenium	7.56	7.56 – 7.56	50	50	ppb	N	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.

*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.

Lead and Copper

Year	Contaminant	The 90 th Percentile	No. of Sites Exceeding Action Level	Action Level	MCLG	Unit of Measure	Violation (Y or N)	Source of Contaminant
2013	Lead	0.00357	1	0.015	0	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits.
2013	Copper	0.493	0	1.3	1.3	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

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. Trophy Club Municipal Utility District No. 1 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>.

Turbidity (Source Water: City of Fort Worth)

Year	Contaminant	MCL	MCLG	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Violation (Y or N)	Source of Contaminant
2015	Turbidity	TT	N/A	0.5	98.9%	0.3	NTU	N	Soil runoff.

Turbidity is a measure of the cloudiness of water and has no health effects. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Microbiological Contaminants

Year	Contaminant	MCL	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Violation (Y or N)	Source of Contaminant
2015	Fecal Coliform & E. Coli	N/A	N/A	N/A	N	Human and animal fecal waste.
2015	Total Coliform Bacteria	One positive monthly sample.	0	100%	N	Naturally present in the environment.

Total Coliform Bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Total Organic Carbon (Source Water: City of Fort Worth)

Year	Contaminant	MCL	MCLG	Highest Measurement	Lowest Measurement	Average	Violation (Y or N)	Source of Contaminant
2015	Total Organic Carbon	TT = % removal	N/A	1.0	1.0	1.0	N	Naturally occurring.

Total Organic Carbon is used to determine disinfection by-product precursors. The City of Fort Worth was compliant with all monitoring and treatment technique requirements for disinfection by-product precursors.

Secondary and Other Constituents Not Regulated (No associated adverse health effects.)

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Violation (Y or N)	Source of Constituent
2011	Bicarbonate	144	144	144	N/A	ppm	N	Corrosion of carbonate rocks such as limestone.
2014	Chloride	22.7	22.7	22.7	300	ppm	N	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2014	Conductivity	348	348	348	N/A	UMHO/CM	N	Measure of the ability of the water sample to conduct electricity.
2011	pH	8.4	8.4	8.4	8.2	units	N	Measure of corrosivity of water.
2014	Sulfate	25.1	25.1	25.1	300	ppm	N	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2014	Total Alkalinity as CaCO ₃	107	107	107	N/A	ppm	N	Naturally occurring soluble mineral salts.
2010	Total Hardness as CaCO ₃	96	103	194	N/A	ppm	N	Naturally occurring soluble mineral salts.
2014	Total Dissolved Solids	200	200	200	1000	ppm	N	Total dissolved minerals in water.

Unregulated Contaminant Monitoring

Year	Constituent	Average Level	Range of Levels Detected	MRL	Reference Concentration	Unit of Measure	Violation (Y or N)	Source of Constituent
2015	Molybdenum	1.86	1.83 – 1.88	1.0	40	ppb	N	Naturally-occurring element found in ores and present in plants, animals and bacteria.
2015	Strontium	399	392 - 405	0.3	1500	ppb	N	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
2015	Vanadium	0.97	0.93 – 1.0	0.2	21	ppb	N	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.
2015	Chromium-6	0.037	0.034 - 0.04	0.030	N/A	ppb	N	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.

EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) program to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Every five years EPA develops a new list of UCMR contaminants, largely based on the Contaminant Candidate List (CCL). Results of UCMR 3 measurements should be interpreted accordingly. The detection of a UCMR 3 contaminant above the MRL does not represent cause for concern, in and of itself. Rather, the implications of the detection should be judged considering health effects information (which is often still under development or being refined for unregulated contaminants). For more information on occurrence data consult "UCMR 3 Data Considerations, Definitions, Reference Concentrations and Summary PDF" at <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/data.cfm#ucmr2013>.

Water Loss for 2014

The water loss audit submitted to the Texas Water Development Board for the time period of January 2015 through December 2015 indicates our system lost an estimated 64 million gallons of water (7% of production).