Definitions

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.

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.

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 contaminants.

Maximum Residual Disinfectant Level (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.

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

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

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

NTU (Nephelometric Turbidity Units): A measure of clarity.

NA: Not applicable.

MREM (millirems): a measure of radiation absorbed by the body.

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

ND: Not detectable at testing limits.

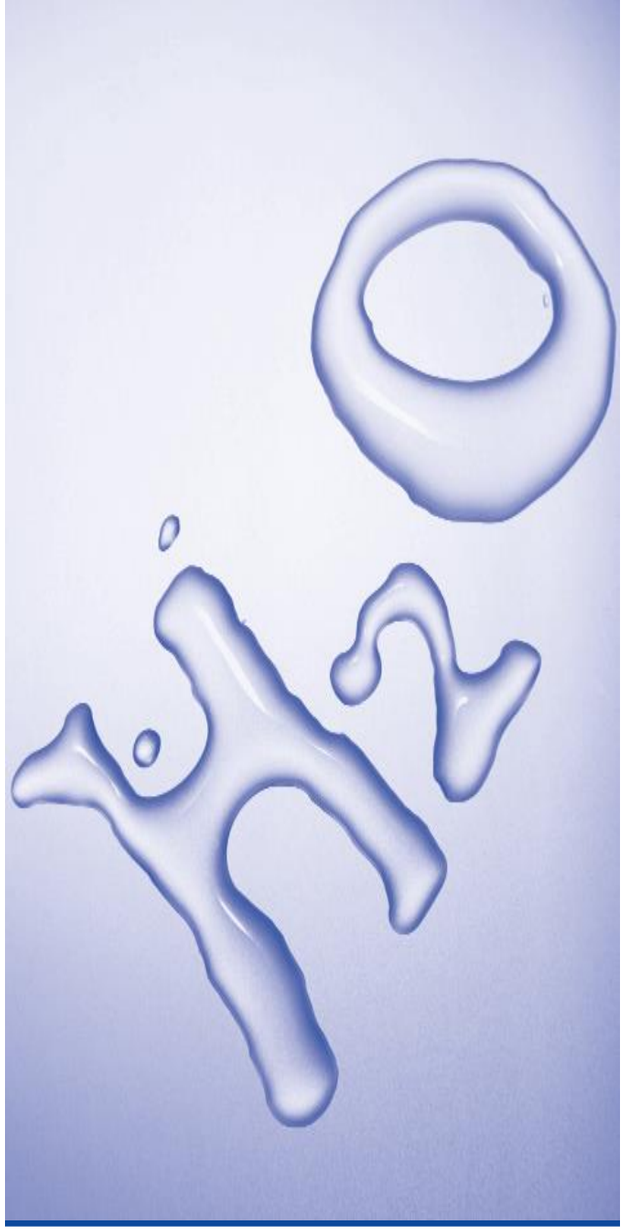
PPB (parts per billion): micrograms per liter (ug/l).

PPM (parts per million): milligrams per liter (mg/l).

CDC: Centers for Disease Control.

EPA: Environmental Protection Agency.

TCEQ: Texas Commission on Environmental Quality.



2015 Annual Water Quality Report

City of
White Settlement
PWS ID# 2200081

City of White Settlement

817-246-4971

PWS ID # 2200081

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (817) 246-4971 para hablar con una persona bilingüe en español.

What's the Quality of My Water?

The City of White Settlement is pleased to share this water quality report with you. It describes to you, the customer, the quality of your drinking water. This report covers January 1 through December 31, 2015. The City of White Settlement's drinking water supply surpassed the strict regulations of both the State of Texas and the U.S. Environmental Protection Agency (EPA), which requires all water suppliers to prepare reports like this every year.

Our water source is groundwater drawn from the Paluxy Aquifer (3 wells) and the Trinity Aquifer (5 wells). Our wells produce about 42% of our water. The remainder of our water is purchased pretreated surface water from the Fort Worth Water Department. Fort Worth utilizes water from Lake Bridgeport, Eagle Mountain Lake, Lake Worth, Benbrook Lake via the Clear Fork of the Trinity River, Cedar Creek Reservoir and Richland-Chambers Reservoir. Your water is treated through sedimentation, filtration and disinfection.

A Source Water Assessment for your drinking water source(s) is currently being conducted by the TCEQ and should be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information in this assessment will allow us to focus our source water protection strategies.

If you have any questions about this report or concerning your water utility, please contact Robert Smith at 817-246-4971. We want our valued customers to be informed about their water utility. You can attend Regular City Council meetings on the second Tuesday of each month, at 7:00 PM, in the Council Chambers, located at 214 Meadow Park Dr. White Settlement, TX 76108.

Raw surface water is monitored at all intake sites for *Cryptosporidium*, a microbial parasite common in surface water. The source is human and animal fecal waste in the watershed. The 2015 monthly revealed very low levels. The testing methods used cannot determine if the parasite is dead and inactive or alive and capable of causing cryptosporidiosis. This is an abdominal infection that causes nausea, diarrhea and abdominal cramps after ingestion. The drinking water treatment process is designed to remove *Cryptosporidium* through filtration

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immuno-compromised 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 (1-800-426-4791).

The City of White Settlement uses Chlorine as a disinfectant. The average quarterly level was 1.22Mg/L. The lowest single sample was .20Mg/L. the highest single sample was 3.71Mg/L. The reason some of these may seem low is we switched from free to total in our sampling data.

The maximum disinfectant level is 4Mg/L. The goal for the maximum disinfectant level for White Settlement is 2.5 Mg/L. All disinfectant levels are measured in milligrams per liter (Mg/L).

The city of White Settlement has always strived for and will continue to provide its customers with the safest drinking water possible.

The City of White settlement has completed a water loss audit for the year 2015 and we have produced 143,368,000 gallons of water and purchased 485,622,514 gallons of water from Fort Worth for a total system waster of 628,990,514 gallons. We had an estimated water loss of 125, 000,000 gallons due to leaks, flushing of lines and hydrants, theft and firefighting.

The U.S. Environmental Protection Agency (EPA) wants you to know:

In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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 that must provide the same protection for public health.

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).

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

2015 Monitoring Results for Contaminants in Drinking Water for The City of White Settlement

The following results are from testing completed by White Settlement and Fort Worth[4]

Contaminant	Unit	MCLG Health Goal	MCL EPA's Limits	Highest Level Detected	Range Detected	Violation (Yes / No)	Year Sampled[1]	Potential Source of Contamination
Microbiological Contaminants								
Total Coliform Bacteria (Fort Worth)	Positive/ negative	0	>5% of monthly samples are positive	2.2% positive	0-2.2	NO	2013	Naturally present in the environment.
Total Organic Carbon [5]	ppm	NA	TT	1.0 average removal ratio	1.0 - 1.0	NO	2013	Naturally present in the environment.
Turbidity[2] (Fort Worth)	NTU	NA	TT	0.5 98.9%		NO	2015	Soil Runoff.
Radiological Contaminants								
Beta/photon emitters (Fort Worth)	pCi/L	n/a	50[3]	5.6	4-5.6	NO	2015	Decay of natural and man-made deposits.
Alpha emitters[6] (White Settlement)	pCi/L	0	15	13.0	12.7-25.1	NO	2013	Erosion of natural deposits.
Combined Radium[7] (White Settlement)	pCi/L	0	5	4.1	4.1-4.1	NO	2014	Erosion of natural deposits.
Gross Alpha (White Settlement)	ppb	0	15	11.8	11.8-11.8	NO	2014	Erosion of natural deposits.
Inorganic Contaminants								
Barium (fort Worth))	ppm	2	2	0.71	0.05-0.07	NO	2015	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
Bromate (Fort Worth)	ppb	0	10	6.22	0-6.22	NO	2015	Byproduct of drinking water disinfection.
Fluoride Fort Worth	ppm	4	4	.56	.12-.56	NO	2015	Erosion of natural deposits. Water additive to promote strong teeth. Discharge from fertilizer and aluminum factories.
Nitrate (combined)	ppm	10	10	0.474	0.0415-0.474	NO	2015	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Nitrite (Fort Worth)	ppm	1	1	0.04	0-0.04	NO	2015	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Chromium (White Settlement)	ppb	100	100	7.31	7.31-7.31	NO	2011	Discharge from steel and pulpmills; Erosion of natural deposits
Cyanide Fort Worth	ppb	200	200	145	13.4-145	NO	2015	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Selenium (White Settlement)	ppb	50	50	0.658	0.658-0.658	NO	2011	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (White Settlement)	ppb	0.5	2	0.493	0.493-0.493	NO	2011	Discharge from electronics, glass and Leaching from ore-processing sites; drug factories.

The following results are from testing completed by The City of White Settlement. Lead and Copper results are from testing done at the customer's tap

Contaminant	Unit	MCLG Health Goal	MCL EPA's Limits	Level Detected	Violation (Yes / No)	Year Sampled[1]	Potential Source of Contamination
Inorganic Contaminants							
Copper	ppm	1.3	1.3 = AL	0.426 (90th percentile) All sites below AL	NO	2012	Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservatives.
Lead	ppb	0	15 = AL	7.25 (90th percentile) 3 sites over AL	NO	2012	Corrosion of household plumbing systems. Erosion of natural deposits.
Volatile Organic Contaminants and Disinfection By-Products							
Total TTHMS (FTWTH)	ppb	N/A	80	27.8	NO	2015	By-product of disinfection
Haloacetic Acids	ppb	NA	60	8	NO	2015	Byproduct of drinking water chlorination.
Total Trihalomethanes (TTHMs)	ppb	0	80	21	NO	2015	Byproduct of drinking water chlorination.

Non-Regulated and Secondary Substances: Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. All results are from monitoring completed during the 2015 testing year unless otherwise noted. **[1] Includes values from Fort Worth***

Substance	Unit	Range Detected	Potential Source of Contamination
Calcium*[1]	ppb	33.3-42.1	Byproduct of disinfection.
Bromoform*[1]	ppb	1.5-9.9	
Bromodichloromethane*[1]	ppb	2.6-8.9	
Chloroform*[1]	ppb	2.8-15.2	
Dibromochloromethane*[1]	ppb	1.9-9.0	
Monochloroacetic Acid*[1]	ppb	2.0-5.0	
Dichloroacetic Acid*[1]	ppb	7.3-9.3	
Trichloroacetic Acid*[1]	ppb	1.2-6.8	
Monobromoacetic Acid*[1]	ppb	0-2.4	
Dibromoacetic Acid*[1]	ppb	0-3.8	

Footnotes:

[1]The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

[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.

[3]The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

[4]The chart of detected contaminants includes results from both the City of White Settlement and Fort Worth. Results for both systems were combined to get the level detected and range. Contaminant will be identified as either a combination of results from both water systems, a City of White Settlement result or a Fort Worth result.

[5]The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

[6]Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

[7]Some people who drink water containing radium 226 or 228in excess of the MCL over **many years** may have an increased risk of getting cancer.

cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. 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 White Settlement 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.

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.

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.

2014 REGULATED CONTAMINANTS DETECTED

Coliform Bacteria

Year	Total Coliform Max Level	Highest No of Positive	Total No of Positive Fecal Samples	Violation	Likely Source of Contamination
2015	5% or less of monthly samples	1 positive Monthly sample	0	N	Naturally present in the environment

2014 RADIOACTIVE CONTAMINANTS

Radioactive Contaminates	Collection Date	Highest Level Detected	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2014	4.1	4.1-4.1	0	5	pCi/L	N	Erosion of natural deposits
Gross Alpha	2014	11.8	11.8-11.8	0	15	pCi/L	N	Erosion of natural deposits

2014 DISINFECTANTS AND DISINFECTION BY-PRODUCT CONTAMINANTS

Disinfectant and Disinfection Contaminates	Collection Date	Highest Level Detected	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2015	8	0-13.5	No goal for total	60	ppb	N	By-product of drinking water disinfection

Public Notification Rule

Violations Table

Violation Type	Violation Begin	Violation End	Violation Explanation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2015	2015	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

The City of White Settlement has resolved all violations to date. We are working diligently to ensure the safety and quality of or drinking water.