

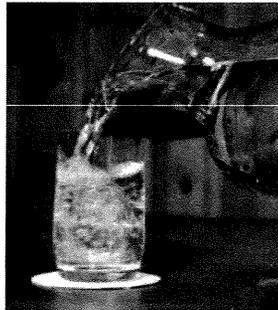
*City of Bridgeport  
Infrastructure Services  
Department*

# 2005

## Annual Drinking Water Quality Report

### Summary

**Our Drinking Water is Regulated** by the Texas Commission on Environmental Quality (TCEQ) and they have determined that certain water quality issues exist, which prevent our water from meeting all of the requirements as stated in the Federal Drinking Water Standards. Each issue is listed in this report as a violation, and we are working closely with TCEQ to achieve solutions. We hope this information helps you become more knowledgeable about what's in your drinking water.



**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: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

**Where do we get our drinking water?** Our drinking water is obtained from surface water sources. It comes from the WEST FORK TRINITY BELOW BRIDGEPORT RES. TCEQ completed an assessment of our source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this report. If we receive or purchase water from another system, their susceptibility is not included in this assessment. For more information on source water assessments and protection efforts at our system, please contact us.

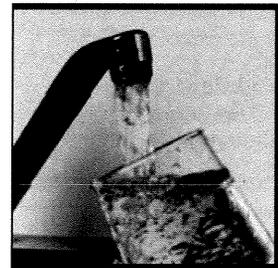
### **We Welcome Public Participation**

To learn about or schedule future public meetings concerning your drinking water please call us at 683-2929.

**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. The 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 for safe Drinking Water Hotline (1-800-426-4791).

### **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 EPA's Safe Drinking Water Hotline (1-800-426-4791).



### **En Espanol**

Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en espanol, favor de llamar al tel. (940) 683-5906 para hablar con una persona bilingüe en espanol.

## 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 concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

## Abbreviations

**NTU** - Nephelometric Turbidity Units

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

**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 ( $\mu\text{g/L}$ )

**ppt** - parts per trillion, or nanograms per liter

**ppq** - parts per quadrillion, or picograms per liter

## Definitions

### Maximum Contaminant Level (MCL)

The highest permissible level of 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.

### Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## About the Following Pages

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

## Unregulated Contaminants

Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point of distribution.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of contaminant
2005	Chloroform	24	24	24	ppb	Byproduct of drinking water disinfection
2005	Bromoform	1.1	1.1	1.1	ppb	Byproduct of drinking water disinfection.
2005	Bromodichloromethane	22	22	22	ppb	Byproduct of drinking water disinfection
2005	Dibromochloromethane	12	12	12	ppb	Byproduct of drinking water disinfection

## Violations

Violation Type	Health Effects	Duration	Explanation	Steps to Correct
MCL VIOLATION - TOTAL TTHM	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.	1/1/2005 to 3/31/2005	Forms when chlorine mixes with naturally occurring organic material in water. This compound is a suspected carcinogen. The EPA has set a the safe maximum level in drinking water ar 80 parts per billion (ppb), based on a lifetime of consumption.	The City is currently changing disinfectants to chloramines which will make the disinfectant byproducts to a level considered safe by EPA standards.
MCL VIOLATION - TOTAL TTHM	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.	3/1/2005 to 6/30/2005	Forms when chlorine mixes with naturally occurring organic material in water. This compound is a suspected carcinogen. The EPA has set a the safe maximum level in drinking water ar 80 parts per billion (ppb), based on a lifetime of consumption.	The City is currently changing disinfectants to chloramines which will make the disinfectant byproducts to a level considered safe by EPA standards.
MCL VIOLATION - TOTAL TTHM	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.	4/1/2005 to 6/30/2005	Forms when chlorine mixes with naturally occurring organic material in water. This compound is a suspected carcinogen. The EPA has set a the safe maximum level in drinking water ar 80 parts per billion (ppb), based on a lifetime of consumption.	The City is currently changing disinfectants to chloramines which will make the disinfectant byproducts to a level considered safe by EPA standards.
MCL VIOLATION - TOTAL TTHM	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.	7/1/2005 to 9/30/2005	Forms when chlorine mixes with naturally occurring organic material in water. This compound is a suspected carcinogen. The EPA has set a the safe maximum level in drinking water ar 80 parts per billion (ppb), based on a lifetime of consumption.	The City is currently changing disinfectants to chloramines which will make the disinfectant byproducts to a level considered safe by EPA standards.
MCL VIOLATION - TOTAL TTHM	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.	10/1/2005 to 12/31/2005	Forms when chlorine mixes with naturally occurring organic material in water. This compound is a suspected carcinogen. The EPA has set a the safe maximum level in drinking water ar 80 parts per billion (ppb), based on a lifetime of consumption.	The City is currently changing disinfectants to chloramines which will make the disinfectant byproducts to a level considered safe by EPA standards.
COLIFORM - FAILURE TO ISSUE OR REPORT PUBLIC NOTIFICATION	Failure to notify consumers of a bacteriological related violation makesit impossible for consumers to consider alternatives to drinking water that is contaminated or inadequately tested.	7/1/2005 to 7/31/2005	Breakdown in communication, did not get notice in local paper.	Assigned task to Supervisor responsible for sampling.
TOTAL COLIFORM NON-ACUTE MCL- NO FECAL FOUND	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Coliforms were found in more smples than allowed and this was a warning of potential problems.	6/1/2005 to 6/30/2005	Inadequately trained personnel. The sample taker contaminated the samples. All subsequent samples were negative.	All personnel in this department have been properly trained on how to take and handle samples.
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## Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of contaminant
2005	Turbidity	0.30	100	0.3	NTU	Soil Runoff

## Total Organic Carbon (TOC)

Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2005	Source Water	8.27	4.24	18.2	ppm	Naturally present in the environment.
2005	Drinking Water	3.31	3	3.63	ppm	Naturally present in the environment.
2005	Removal Ratio	1.61	.55	2.67	% removal	N/A

## Total Coliform

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 bacteria 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.

Year	Contaminant	Highest Monthly # of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2005	Total Coliform Bacteria	3	*	Presence	Naturally present in the environment.

\* 2 or more coliform samples found in any single month

**Fecal Coliform**      REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

## Violations

Violation Type	Health Effects	Duration	Explanation	Steps to Correct
MCL VIOLATION - TOTAL HAA5	Some people who drink water containing HAAs in excess of the MCL over many years may have an increased risk of getting cancer.	1/1/2005 to 3/31/2005	Forms when chlorine mixes with naturally occurring organic material in water. This compound is a suspected carcinogen. The EPA has set a the safe maximum level in drinking water at 80 parts per billion (ppb), based on a lifetime of consumption.	The City is currently changing disinfectants to chloramines which will make the disinfectant byproducts to a level considered safe by EPA standards.
MCL VIOLATION - TOTAL HAA5	Some people who drink water containing HAAs in excess of the MCL over many years may have an increased risk of getting cancer.	3/1/2005 to 6/30/2005	Forms when chlorine mixes with naturally occurring organic material in water. This compound is a suspected carcinogen. The EPA has set a the safe maximum level in drinking water at 80 parts per billion (ppb), based on a lifetime of consumption.	The City is currently changing disinfectants to chloramines which will make the disinfectant byproducts to a level considered safe by EPA standards.
MCL VIOLATION - TOTAL HAA5	Some people who drink water containing HAAs in excess of the MCL over many years may have an increased risk of getting cancer.	4/1/2005 to 6/30/2005	Forms when chlorine mixes with naturally occurring organic material in water. This compound is a suspected carcinogen. The EPA has set a the safe maximum level in drinking water at 80 parts per billion (ppb), based on a lifetime of consumption.	The City is currently changing disinfectants to chloramines which will make the disinfectant byproducts to a level considered safe by EPA standards.

## Inorganic Contaminants

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of contaminant
2005	Barium	0.074	0.074	0.074	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion on natural deposits.
2005	Fluoride	0.2	0.2	0.2	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2005	Nitrate	0.14	0.14	0.14	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage erosion of natural deposits.
2005	Gross beta emitters	3.6	3.6	3.6	50	0	pCi/L	Decay of natural and man-made deposits.

**Organic Contaminants** TESTING WAIVED, NOT REPORTED, OR NONE DETECTED

### Maximum Residual Disinfectant Level

Systems must complete and submit disinfection data on the Surface Water Monthly Operations Report (SWMOR). On the CCR report, the system must provide disinfectant type, minimum, maximum, and average levels.

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2005	Chlorine	1.01	.57	1.33	4.0	<4.0	ppm	Disinfectant used to control microbes

### Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of contaminant
2005	Total Haloacetic Acids	49.8	32.3	57.5	60	ppb	Byproduct of drinking water disinfection
2005	Total Trihalomethanes	114	103.9	126.2	80	ppb	Byproduct of drinking water disinfection

### Lead and Copper

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action level	Action Level	Unit of Measure	Source of contaminant
2005	Lead	5.8	1	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2005	Copper	0.528	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

## Secondary and Other Not Regulated Constituents

(No Associated Adverse Health Effects)

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Limit	Unit of Measure	Source of constituent
2005	Aluminum	0.328	0.328	0.328	50	ppb	Abundant naturally occurring element.
2005	Bicarbonate	135	135	135	NA	ppm	Corrosion of carbonate rocks such as limestone.
2005	Calcium	34.9	34.9	34.9	NA	ppm	Abundant naturally occurring element.
2005	Chloride	21	21	21	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2005	Copper	0.006	0.006	0.006	NA	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2005	Magnesium	6.4	6.4	6.4	NA	ppm	Abundant naturally occurring element.
2005	Manganese	52	52	52	50	ppb	Abundant naturally occurring element.
2005	pH	8.2	8.2	8.2	7	units	Measure of corrosivity of water
2005	Sodium	14	14	14	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
2005	Sulfate	16	16	16	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2005	Total Alkalinity as CaCO <sub>3</sub>	111	111	111	NA	ppm	Naturally occurring soluble mineral salts.
2005	Total Dissolved Solids	179	179	179	1000	ppm	Total dissolved mineral constituents in water.
2005	Total Hardness as CaCO <sub>3</sub>	113	113	113	NA	ppm	Naturally occurring calcium.

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