

# City of Big Spring

## Annual Consumer Report for 2006 on the Quality of Drinking Water

A SPECIAL THANKS TO THE RETIRED SENIORS VOLUNTEER PROGRAM (RSVP) OF BIG SPRING FOR THEIR HELP WITH THIS REPORT.

**Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. 264-2393 o 264-2500 para hablar con una persona bilingue en español.**

This report is a summary of the quality of the water we provide to you, our customers. The analysis was made by using the data from the most recent US Environmental Protection Agency (EPA) required tests and is presented in this report. We hope this information helps you become more knowledgeable about what's in your drinking water. **YOUR DRINKING WATER MEETS OR EXCEEDS ALL FEDERAL DRINKING WATER REQUIREMENTS. THERE WERE NO VIOLATIONS OF THE MAXIMUM CONTAMINANT LEVELS DURING THE YEAR 2006.**

When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point of use devices. ALL 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 the 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). Many constituents (such as calcium, sodium or iron) which are often found in drinking water can cause taste, color, and odor problems. These are called secondary constituents and are regulated by the State of Texas, not the EPA and are not causes for health concern.

The sources of drinking water (both tap and bottled) 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 water before treatment include microbes, inorganic or radioactive contaminants, pesticides, herbicides and organic chemical contaminants.

Your water is first supplied to us before treatment by the Colorado River Municipal Water District (CRMWD) from one of or a combination of four reservoirs: Lakes O. H. Ivie, J. B. Thomas, E. V. Spence and Moss. Normally, it is a blend of water from more than one of these lakes. When necessary (rarely), supplemental water may be added from wells also owned by CRMWD. Blending is done by CRMWD prior to our receiving it. A Source Water Susceptibility Assessment for your drinking water sources is currently being updated by the Texas Commission on Environmental Quality (TCEQ) and will 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. This will allow us to focus our source water protection strategies. For more information on source water assessments and protection efforts at our system, please contact us.

*We encourage public interest and participation in our community's decisions affecting drinking water. Informed consumers are our best allies in maintaining safe drinking water. Regular City Council meetings occur on the 2<sup>nd</sup> and 4<sup>th</sup> Tuesdays of each month, beginning at 5:30 in the City Council Chambers, at 307 East 4<sup>th</sup> Street. Additionally, we will be happy to answer any questions about this report, as well as any you may have concerning your water. You may call Kenny Scott at 264-2393 or Todd Darden at 264-2500.*

**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).

### Water Quality Tables

The following tables contain a list of all of the federally regulated or monitored contaminants which have been found in your drinking water. EPA requires water systems to test for up to 97 contaminants.

- ▶ "MCL" (Maximum Contaminant Level) is the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- ▶ "MCLG" (Maximum Contaminant Level Goal) is the level of a contaminant in drinking water below which there is no known or expected health risk, allowing for a margin of safety.
- ▶ "MRDL" (Maximum Residual Disinfectant Level) is 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.
- ▶ "MRDLG" (Maximum Residual Disinfectant Level Goal) is the level of a disinfectant below which there is no known or expected health risk. They do not reflect the benefits of using disinfectants to control microbial contamination.
- ▶ "Action Level" is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

#### Inorganic Contaminants

Year	Contaminant	Maximum Detected	Range of Detected Levels	MCL	MCLG	Unit of Measure	Source
2004	Barium	0.142	0.142 - 0.142	2	2	parts per million	Discharge of drilling wastes, or from metal refineries; Erosion of natural deposits.
2006	Fluoride	0.42	0.42 - 0.42	4	4	parts per million	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories.
2006	Nitrate	0.16	0.16 - 0.16	10	10	parts per million	Runoff from fertilizer use; Leaching from septic tanks or sewage; Erosion of natural deposits.
2004	Selenium	4.9	4.9 - 4.9	50	50	parts per billion	Discharge from petroleum or metal refineries, and mines; Erosion of natural deposits; Discharge from mines.
2005	Gross alpha	0.7	0.7 - 0.7	50	50	picocuries per liter	Erosion of natural deposits.
2005	Gross beta emitters	6.2	6.2 - 6.2	50	0	picocuries per liter	Decay of natural and man-made deposits.

## Disinfection Byproducts

Year	Contaminant	Avg of All Sampling Points	Range of Detected Levels	MCL	Unit of Measure	Source
2006	Total Trihalomethanes	42.03	33.13 - 52.30	80	parts per billion	Byproducts of drinking water disinfection.
2006	Total Haloacetic Acids	15.76	10.15 - 22.43	60	parts per billion	

## Unregulated Contaminants

Year	Constituent	Avg of All Sampling Points	Range of Detected Levels	Unit of Measure	Source
2006	Chloroform	3.723	3.13 - 4.85	parts per billion	(There is no maximum contaminant level for these chemicals at the entry point to distribution.)
2006	Bromoform	10.653	7.17 - 14.02	parts per billion	
2006	Bromodichloromethane	9.997	8.14 - 13.24	parts per billion	
2006	Dibromochloromethane	10.7	8.73 - 13.11	parts per billion	
2006	Bromochloroacetic Acid	8.67	<5.0 - 10.5	parts per billion	

## Turbidity

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits †	Turbidity Limits	Unit of Measure	Source
2006	Turbidity	0.52	98.9%	0.3	Nephelometric Turbidity Units	Soil runoff.

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.  
 † 95% or greater samples must meet the turbidity limit (0.3).

## Lead and Copper

Year	Contaminant	The 90 <sup>th</sup> Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source
2004	Copper	0.173	0	1.3	parts per million	Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservatives.
2004	Lead	3.7	0	15	parts per billion	

## Total Coliform

Year	Contaminant	Highest Number of Positive Samples	MCL	Unit of Measure	Source
2006	Total Coliform Bacteria	0	> 2	Presence	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 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. There were no coliform bacteria found in any samples taken in 2006.

## Total Organic Carbon (TOC)

Year	Constituent	Average	Range	Unit of Measure	Source
2006	Total Organic Carbon - Source Water	5.66	4.08 - 8.88	parts per million	Naturally present in the environment.

TOC has no adverse 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 (HAAs), which are reported on elsewhere in this report.

## Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Source
2006	Chloramines	2.49	0.5 - 6.1	4.0	< 4.0	parts per million	Disinfectant used to control microbes.

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

Year	Constituent	Ave Level	Range of Levels	Limit	Unit of measure	Source
2004	Aluminum	0.037	0.037 - 0.037	50	parts per million	Abundant naturally occurring element.
2006	Bicarbonate	134	134 - 134	NA	parts per million	Corrosion of carbonate rocks such as limestone.
2004	Calcium	90.3	90.3 - 90.3	NA	parts per million	Abundant naturally occurring element.
2006	Chloride	286	286 - 286	300	parts per million	Abundant naturally occurring element; Byproduct of oil field activity.
2005	Hardness as Ca/Mg	382	382 - 382	NA	parts per million	Naturally occurring calcium and magnesium.
2004	Magnesium	35.7	35.7 - 35.7	NA	parts per million	Abundant naturally occurring element.
2004	Manganese	3	3 - 3	50	parts per billion	Abundant naturally occurring element.
2004	Nickel	2.5	2.5 - 2.5	NA	parts per billion	Erosion of natural deposits.
2006	pH	8.03	8.03 - 8.03	7	standard units	Measure of corrosivity of water.
2004	Sodium	180	180 - 180	NA	parts per million	Erosion of natural deposits; Byproduct of oil field activity.
2006	Sulfate	224	224 - 224	300	parts per million	Naturally occurring; Common industrial byproduct; Byproduct of oil field activity.
2006	Total Alkalinity as CaCO <sub>3</sub>	134	134 - 134	NA	parts per million	Naturally occurring soluble mineral salts.
2006	Total Dissolved Solids	879	879 - 879	1000	parts per million	Total dissolved mineral constituents in water.
2006	Total Hardness as CaCO <sub>3</sub>	351	351 - 351	NA	parts per million	Naturally occurring calcium.

A large-print version of this report may be obtained by calling 264-2393. Also, see our website at [www.ci.big-spring.tx.us](http://www.ci.big-spring.tx.us).