

CITY OF BEDFORD

2011 Drinking Water Quality Report

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 on the attached page. We hope this information helps you become more knowledgeable about what's in your drinking water.

When drinking water meets federal standards there may not be any health 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

City of Bedford's Water Source

The source of drinking water used by the City of Bedford is purchased surface water supplied from the Trinity River Authority's Tarrant County Water Supply Project. The raw water source is Lake Arlington. The City of Bedford also obtains groundwater from the Trinity Aquifer through one deep-water well. During 2011, the groundwater well was used to supply 4.5 percent of the total water used in the City of Bedford.

A Source Water Susceptibility Assessment for the City of Bedford's drinking water source is currently being updated by the Texas Commission on Environmental Quality (TCEQ). This report describes the susceptibility and types of constituents that may come into contact with the City's drinking water source based on human activities and natural conditions. The information contained in this assessment will allow the City of Bedford to focus our source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/> or you can contact Bill Shelton at (817) 952-2220 for more information.

Contaminants Detected in the City of Bedford's Drinking Water

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 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), and Radioactive contaminant (which can be naturally-occurring or be the result of oil and gas production and mining activities).

Many constituents, such as calcium and sodium, 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, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Required Additional Health Information for Lead

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 Bedford 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>.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

Some people may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immune-compromised individuals such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with other immune system disorders can be particularly at risk of infection. These people should seek advice about drinking water from their health care providers. 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.

En Español

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) 952-2200 – para hablar con una persona bilingüe en español.

Questions/Comments

If there are any questions or concerns regarding this Consumer Confidence Report, you can contact the City of Bedford Public Works Department at (817) 952-2200.

Definitions:

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is not 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 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. **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. This is used for levels of lead and copper in drinking water.

Inorganic Contaminants	Year Tested	MCL	MCGL	Highest Detected	Range Detected	Source of Contaminant
Barium (ppm)	2008	2	2	0.0514	0.0514-0.0514	Erosion of natural deposits
Bromate (ppb)	2011	10*	0	15.6*	ND-15.6*	By-product of drinking water ozonation
*Compliance is based on Running Annual Average of monthly averages for Bromate at the end of each quarter, which was less than 5 ppb for each quarter in 2011.						
Fluoride (ppm)	2011	4	4	0.16	0.16-0.16	Erosion, Water additive promoting strong teeth
Nitrate (ppm)	2011	10	10	0.19	0.19-0.19	Runoff from fertilizer use, septic tanks, sewage
Chromium (ppb)	2008	100	100	1.07	1.07-1.07	Erosion of natural deposits
Disinfection By-Products	Year Tested	MCL	MCGL	Highest Detected	Range Detected	Source of Contaminant
Total Haloacetic Acids (ppb)	2011	60	N/A	21	9-21	By-product of drinking water chlorination
Total Trihalomethanes (ppb) **	2011	80	N/A	25	21-25	By-product of drinking water chlorination
Microbial Contamination	Date Tested	MCL	MCGL	Highest Monthly % Positive Samples	Range Detected	Source of Contaminant
Total Coliform	2011	5%	0	2%*	0.0-0.0	Naturally present in the environment
*After any positive coliform sample, three repeat samples must be taken: one at the original sampling site, one upstream of the sampling site, and one downstream of the sampling site. In addition to those three samples, a sample must be taken at the well site. If any of the repeat samples, including the well site sample, test positive for total coliform, ONLY THEN is it considered a reportable violation. The City of Bedford had two initial positive total coliform results: 09/06/2011 and 10/25/2011. ALL REPEAT SAMPLES FOUND NO COLIFORM PRESENT.						
Unregulated Contaminants						
These unregulated contaminants are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.						
	Date Tested			Average Level Found	Range Detected	Source of Contaminant
Chloroform (ppb)	2011			13.25	13.25-13.25	Byproduct of drinking water disinfection
Bromodichloromethane (ppb)	2011			11.99	11.99-11.99	Byproduct of drinking water disinfection
Dibromochloromethane (ppb)	2011			6.33	6.33-6.33	Byproduct of drinking water disinfection
Lead and Copper	Date Tested	Action Level	The 90th Percentile	# of sites exceeding AL	Range Detected	Source of Contaminant
Copper (ppm)	2010	1.3	0.099	0	0.0169-0.195	Corrosion of household plumbing systems
Lead (ppb)	2010	15	13	0	0.72-3.54	Corrosion of household plumbing systems
Turbidity	Date Tested	MCL	Highest Detected	MCLG	Turbidity Limits	Source of Contaminant
Turbidity (NTU)	2011	TT=1 NTU	0.29	0	0.3	Soil Runoff / Plant Decay
Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth.						
Radionuclides						
*MCLG and MCL are given in exposure units of millirem/year (set of 0 and 4 respectively), but samples are measured in activity units of picoCuries/Liter (pCi/L). EPA considers 50 pCi/L to be the level of concern for Beta particles.						
	Date Tested	MCL	MCGL	Highest Detected	Range Detected	Source of Contaminant
Beta/Photon emitters (pCi/L)	2008	50*	0*	4.6	4.6-4.6	Decay of natural and man-made deposits
Total Organic Carbon						
Total Organic Carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that the water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAAs) which are reported elsewhere in this report.						
	Date Tested	MCL	MCLG	Highest Detected	Range Detected	Source of Contaminant
Removal Ratio (% removal*)	2011	TT=1.0	None	1.4	1.00-1.40	Naturally present in environment
*Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.						
Secondary and Other Constituents	Date Tested	Highest Detected	Range of Levels Detected	Secondary Limit	Source of Contaminant	
Not Regulated						
Aluminum (ppm)	2008	43.9	43.9-43.9	50	Abundant naturally occurring element	
Bicarbonate (ppm)	2011	106	106-106	None	Erosion of carbonate rocks such as limestone	
Calcium (ppm)	2008	36.7	36.7-36.7	None	Abundant naturally occurring element	
Chloride (ppm)	2011	17.2	17.2-17.2	300	Occurs naturally, byproduct of water disinfection	
Copper (ppm)	2008	0.00993	0.00993-0.00993	1.0*	Corrosion of household plumbing systems	
*This secondary limit is for Copper as a nuisance contaminant, apart from the primary list because it can stain fixtures and impart a bitter metallic taste to drinking water						
Magnesium (ppm)	2008	4.32	4.32-4.32	None	Abundant naturally occurring element	
Manganese (ppb)	2008	3.66	3.66-3.66	50	Naturally occurring element	
Nickel (ppm)	2008	0.00272	0.00272-0.00272	None	Naturally occurring element	
pH (units)	2011	8.5	7.5-8.5	>7.0	Measure of the corrosivity of water	
Sodium (ppm)	2011	25	25-25		Erosion of natural deposits	
Specific Conductance @25°C (umhos/cm)	2011	384	384-384	None	Naturally occurring; indicator of dissolved conductive constituents in water.	
Sulfate (ppm)	2011	45.9	45.9-45.9	300	Naturally occurring; common industrial byproduct	
Total Alkalinity (ppm)	2011	106	106-106	None	Naturally occurring soluble mineral salts	
Total Dissolved Solids (ppm)	2011	225	225-225	1000	Total dissolved mineral constituents in water	
Total Hardness (ppm)	2008	110	110-110	None	Naturally occurring calcium	
Units: ppm = parts per million, or milligrams of contaminant per liter of water (mg/L) ppb=parts per billion, or micrograms of contaminant per liter of water (µg/L)						
NTU = Nephelometric Turbidity Units pCi/l = picocuries per liter (a measure of radioactivity)						
Notes: The City of Bedford did not test for Radon						
** In August 2010 the Texas Commission on Environmental Quality notified the City that they detected a quarterly average for Total Trihalomethanes that exceeded 80 ppb during routine sampling. The City was NOT in violation of the MCL for Total Trihalomethane therefore the State did not require public notification.						
Cryptosporidium Monitoring Information: Cryptosporidium is a microbial pathogen which may be found in water contaminated with feces. Although filtration removes Cryptosporidium, it cannot guarantee 100 percent removal nor can the testing methods determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection with nausea, diarrhea and abdominal cramps that may occur after ingestion of contaminated water.						
Our drinking water is obtained from Lake Arlington. Flow from Cedar Creek and Richland Chambers reservoirs is pumped to Lake Arlington to maintain lake levels during dry periods. Samples were collected from all three reservoirs monthly from January 2010 through December 2010 and analyzed for the presence of Cryptosporidium in accordance with the Long Term Stage 2 Enhanced Surface Water Treatment Rule. Of the 36 samples collected, no samples were found to contain Cryptosporidium.						