



ANNUAL DRINKING Water Quality REPORT

The annual drinking water quality report for 2006 was developed using data from the most recent U. S. Environmental Protection Agency (USEPA) required tests. Based on results of our water analyses, the City of Corpus Christi water supply meets or exceeds all federal drinking water requirements.

The City's water is obtained from surface water sources. The Atascosa River and Nueces River supply Lake Corpus Christi, while the Frio River supplies Choke Canyon Reservoir. Water from Lake Texana is transported through the 101 mile Mary Rhodes Pipeline. Drinking water is produced at the O. N. Stevens Water Treatment Plant. A Source Water Susceptibility Assessment of our drinking water sources is currently being updated by the Texas Commission on Environmental Quality and will be provided this year. The report will describe the susceptibility and

types of constituents that may come into contact with our supply water source based on human activities and natural conditions. The information contained in the assessment will allow the City to focus on source water protection strategies.

The sources of drinking water, whether it is tap or bottled water, comes from rivers, lakes, streams, ponds, reservoirs, springs or wells. As water travels over the surface of the land, it dissolves naturally occurring minerals and in some cases, radioactive material, and picks up substances resulting from the presence of animals or from human or industrial activity. Contaminants that may be present in a water source before treatment include microbes, inorganic contaminants, pesticides, radioactive contaminants and organic chemical contaminants. For more information on source water assessments and protection efforts at our system, please call 361.826.1879.

A SPECIAL NOTICE FOR THE ELDERLY, INFANTS, CANCER PATIENTS, PEOPLE WITH HIV/AIDS AND OTHER IMMUNE SYSTEM DISORDERS

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/Center 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 at 1.800.426.4791.

ALL DRINKING WATER, INCLUDING BOTTLED WATER, MAY CONTAIN SMALL AMOUNTS OF 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1.800.426.4791.

Public Participation Opportunity

6 p.m. on Wednesday, June 21, 2007
Water Utilities Conference Room
2726 Holly Road ☞ Corpus Christi, TX
Water issues are also discussed at City Council meetings, usually held on every Tuesday, except for the first Tuesday of the month. Call 880-3105 for exact date and meeting times or check the website at www.cctexas.com

AL - Action Level the concentration of a contamination which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL - Maximum Contaminant Level - the highest level of a contamination allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal - 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.

MRDL - Maximum Residual Disinfectant Level. 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. The limit is the running annual average.

MRDLG - Maximum Residual Disinfectant Level Goal - 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.

mrem/year - millirem per year (measurement of radiation absorbed in the body).

NTU - Nephelometric Turbidity Units is a measure of turbidity in water.

pCi/L - pico-curies per liter (a measure of radioactivity.)

ppb - parts per billion - one part per billion is equal to one packet of artificial sweetener sprinkled into 250,000 gallons of iced tea.

ppm - parts per million - one part per million is equal to one packet of artificial sweetener sprinkled into 250 gallons of iced tea.

TT - Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water.

Turbidity - a measure of clarity of drinking water. The lower the turbidity, the better the taste.

LEAD AND COPPER - USEPA RECOMMENDS THAT YOU ...

- Flush your water pipes before drinking water
- Use only cold water for cooking and drinking
- Look for pipes or solder that have a dull gray metal and are easily scratched with a house key
- Look for signs of rust-colored water, stained dishes or laundry

Seek additional information from the National Lead Information Center at 1.800.424.LEAD (5323).

Federally regulated or monitored contaminants, as identified below, have been found in our drinking water. The U.S. Environmental Protection Agency requires water systems to test for up to 97 constituents. All water quality results are for 2006, unless otherwise shown.

REGULATED CONTAMINANTS YEAR / CONSTITUENT NAME / UNIT	RANGE DETECTED		USEPA LIMITS		SOURCE OF CONTAMINANT
	AVERAGE	RANGE	MCL	MCLG	
2004 Barium (ppm)	0.09	0.09	2	2	-Discharge of drilling waste, erosion of natural deposits.
2006 Fluoride (ppm)	0.6	0.6 - 0.6	4	4	-Erosion of natural deposits, water additive.
2006 Nitrate (ppm)	0.19	0.19 - 0.19	10	10	-Fertilizer runoff; erosion of natural deposits
2004 Selenium (ppb)	4.8	4.8	50	50	-Petroleum/metal discharge; erosion of natural deposits.
2005 Gross Beta Emitters (pCi/L)	4	4 - 4	50	0	- Decay of natural/man-made deposits
2006 Total Trihalomethanes (ppb)	39	30 - 49	80	n/a	- By-product of drinking water disinfection.
2006 Total Haloacetic Acids (ppb)	9	7 - 11	60	n/a	- By-product of drinking water disinfection.

TOTAL ORGANIC CARBON (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs) as reported elsewhere in this report. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Year 2006 Data	Avg	Min	Max	MCL	MCLG	
Source Water TOC (ppm)	6.06	5.50	6.76	n/a	n/a	- Naturally present in the environment
Plant 1 Drinking Water TOC (ppm)	4.26	3.92	4.51	n/a	n/a	- Naturally present in the environment
Plant 2 Drinking Water TOC (ppm)	4.20	3.80	4.66	n/a	n/a	- Naturally present in the environment
Plant 1 Removal Ratio	1.14	0.98	1.38	n/a	n/a	- Naturally present in the environment
Plant 2 Removal Ratio	1.17	1.04	1.44	n/a	n/a	- Naturally present in the environment

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL)						
	Avg	Min	Max	MRDL	MRDL	
2006 Chloramines (ppm)	2.8	0.3	7.9	4.0	≤ 4.0	- Disinfectant used to control microbes.

UNREGULATED CONTAMINANTS are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

	Avg	Min	Max	MCL	MCLG	
2006 Bromodichloromethane (ppb)	7.1	7.1	7.1	n/a	n/a	- By-product of drinking water disinfection.
2006 Chloroform (ppb)	3.7	3.7	3.7	n/a	n/a	- By-product of drinking water disinfection.
2006 Chlorodibromomethane (ppb)	5.8	5.8	5.8	n/a	n/a	- By-product of drinking water disinfection.
2006 Bromoform (ppb)	4.1	4.1	4.1	n/a	n/a	- By-product of drinking water disinfection.

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.

2006 Turbidity - Plant 1 (NTU)	0.19	100%	TT/AL = 0.3	- Soil runoff.
2006 Turbidity - Plant 2 (NTU)	0.28	100%	TT/AL = 0.3	- Soil runoff

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 organism; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. During 2006, 2,089 total coliform analyses were performed.

	Highest Monthly % of Positive Samples	Unit of Measure	MCL	
2006 Total Coliform Bacteria	1	Presence	*	- Naturally present in the environment

* Presence of coliform bacteria in 5% or more of the monthly samples.

FECAL COLIFORM bacteria, in particular, E. coli, are members of the coliform bacteria group originating in the intestinal tract of warm-blooded animals and are passed into the environment through feces. The presence of fecal coliform bacteria (E. coli) in drinking water may indicate recent contamination of the drinking water with fecal material.

	Total Number of Positive Samples	Unit of Measure	MCL	
2006 Fecal Coliform and E. coli	3	Presence	*	- Human and animal fecal waste.

* A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive.

LEAD AND COPPER test results indicate that they were below the action level.

	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	
2005 Lead (ppb)	2.1	0	15	- Lead and copper are a source of corrosion of household plumbing systems.
2005 Copper (ppm)	0.17	0	1.3	

The City of Corpus Christi conducted monthly monitoring of source water for Cryptosporidium from January 2005 to December 2006. During that period, Cryptosporidium was detected on three sampling events. In each case, the result was 1 count/10 liter sample.

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

E.Coli was monitored in the raw water from October to December 2006 and the results shown on the right column were obtained.

NEW USEPA REGULATION: CRYPTOSPORIDIUM / E. COLI

SOURCE WATER - NUECES RIVER

Sample Date	Result (E.coli / 100 mL)	Turbidity
10/10/06	10	85
11/7/06	<1	61
12/5/06	<1	80

SOURCE WATER - LAKE TEXANA

Sample Date	Result (E.coli / 100 mL)	Turbidity
10/10/06	<1	40
11/7/06	40	51
12/5/06	75	36

Secondary Constituents - Not Regulated

Many constituents, such as calcium, sodium or iron are often found in drinking water and 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, but they may affect the appearance and taste of your water.

2006 Constituent / Source of Constituent	One-Time TCEQ Monitoring Results	TCEQ Limit	City's Internal Annual Monitoring Avg.
Chloride (ppm) - Abundant naturally occurring substance; used in water purification; by-product of oil field activity	140	300	169
pH (units) - Measure of corrosivity of water	8.0	>7.0	7.6
Sulfate (ppm) - Naturally occurring substance; common by-product of industrial and oil field activity	66	300	79
Total Dissolved Solids (ppm) - Total dissolved mineral constituents in water	441	1,000	494
Total Hardness (ppm / grains per gallons) - Naturally occurring calcium and magnesium	204	N/A	196 / 11.5

