WATER DEPARTMENT
City of Corpus Christi

OVER 100 YEARS of SERVICE

2005 WATER QUALITY REPORT
H2O
Corpus Christi, Texas

Este reporte contiene información sobre su agua potable.
Para obtener una copia del reporte en español, llame 826-1879.

Your Water. Our Priority.

OUR DRINKING WATER MEETS OR EXCEEDS ALL FEDERAL DRINKING WATER REQUIREMENTS.
This report is a summary of the quality of water that we provide to our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests. We hope this information helps you become more knowledgeable about what's in your drinking water.

WHERE DO WE GET OUR DRINKING WATER? Our drinking water is obtained from surface water sources. The Atascosa, Frio and Nueces Rivers supply water to the Lake Corpus Christi/Choke Canyon Reservoir System while water from Lake Texana is transported through the 101-mile long Mary Rhodes pipeline.

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, 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, herbicides, radioactive contaminants and organic chemical contaminants.

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 the Water Department at 826-1879.

Our mission is to effectively manage the water supply, production and distribution system in order to meet the water supply needs and to provide safe drinking water that meets all state and federal regulations. We are also committed to maintaining infrastructure to ensure the adequacy of the water system to reach projected growth requirements and to identify and acknowledge consumer needs and expectations.

All Drinking Water, including Bottled Water May Contain Small Amounts of Contaminants

Corpus Christi drinking water meets all federal standards; and 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 at 1.800.426.4791.

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/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 1.800.426.4791.

LEAD IN HOUSEHOLD PIPES

Test results for 2005 show that the lead and copper values in our drinking water were below the action level as set by the Texas Commission on Environmental Quality (TCEQ).

	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level
Lead (ppb)	2.1	0	15
Copper (ppm)	0.17	0	1.3

Lead and copper is a source of corrosion of household plumbing systems. The USEPA recommends:

- Flushing your water pipes before drinking.
- 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 800-424-LEAD (5323).

COLIFORMS

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.

During 2005 fecal coliform bacteria were not detected in our drinking water. Fecal coliform bacteria and, 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.

Contaminant: Total Coliform Bacteria

Highest Monthly Percentage of Positive Samples: 1.8%

Maximum Contaminant Limit: Presence of coliform bacteria in ≥ 5.0% of monthly samples

Unit of Measure: Presence

Source of Contaminant: Naturally present in the environment.

Cryptosporidium Monitoring

We participated in monitoring for Cryptosporidium of our source water. Cryptosporidium is a microbial pathogen that may be found in water contaminated by 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. The summary of the monitoring results follows.

During the months of October and December 2005, 1 oocyst / 10 Liter sample was found.

PUBLIC MEETING

Wednesday, June 28, 2006 @ 6 p.m.
Water Utilities Conference Room
2726 Holly Road * Corpus Christi, Texas
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 date and meeting times.

DEFINITIONS

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

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

MCL - Maximum Contaminant Level - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.

MCLG - Maximum Contaminant Level Goal
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.

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 contamination.

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 (μg/L)
ppt - parts per trillion, or nanograms per liter
ppq - parts per quadrillion, or picograms per liter
n/a - not applicable

Federally regulated or monitored contaminants, as identified below, have been found in our drinking water. The U.S. Environmental Protection Agency require water systems to test for up to 97 constituents. During 2005, drinking water samples collected from the City of Corpus Christi met all state and federal drinking water requirements.

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Regulated Contaminants Constituent/Measurement Unit/Source	City's Water Results Average	Range	USEPA Regulations MCL	MCLG
• Fluoride (ppm) Water additive, promotes strong teeth	0.6	0.6 - 0.6	4.0	4.0
• Nitrate (ppm) Runoff from fertilizer or erosion of natural of natural and man-made deposits.	0.22	0.22 - 0.22	10	10
• Gross Beta Emitters (pCi/L) Decay of natural and man-made materials	4	4 - 4	50	0
• Total Trihalomethanes (ppb) By products of drinking water disinfection	31	17 - 46	80	n/a
• Total Haloacetic Acids (ppb) By products of drinking water disinfection	20	8 - 37	60	n/a
• Total Organic Carbon - TOC (ppm) 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 shown in this table.				
Source Water	5.40	4.75 - 6.50	n/a	n/a
Drinking Water - Plant 1	3.32	2.50 - 3.83	n/a	n/a
Drinking Water - Plant 2	3.29	2.40 - 4.00	n/a	n/a
Removal Ratio - Plant 1	1.38	1.09 - 1.96	n/a	n/a
Removal Ratio - Plant 2	1.40	1.08 - 2.04	n/a	n/a
	Average		MRDL	MRDLG
• Chloramines (ppm) Disinfectant used to control microbes	3.2	0.1 - 6.0	4.0	≤4.0
Unregulated Contaminants				
• Bromodichloromethane	6.3	6.3 - 6.3	n/a	n/a
• Chloroform	2.3	2.3 - 2.3	n/a	n/a
• Chlorodibromomethane	9.6	9.6 - 9.6	n/a	n/a
• Bromoform	10.7	10.7 - 10.7	n/a	n/a
	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits		
• Turbidity (NTU) - Plant 1	0.22	100	TT/AL = 0.3	n/a
• Turbidity (NTU) - Plant 2	0.23	100	TT/AL = 0.3	n/a
Turbidity has no health effects; however, it can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organism include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. The source of Turbidity is soil runoff.				

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 EPA. These constituents are not causes for health concerns. In as much as secondary constituents are not required to be reported, they may affect the appearance and taste of your water.

Constituent / Source of Constituent	Average	Mininum Level	Maximum Level	USEPA Limit	City's Internal Annual Monitoring Avg.
Chloride (ppm) - Abuntant naturally occurring element; used in water purification; byproduct of oil field activity	47	47	47	250	107
pH (units) - Measure of corrosivity of water	8.0	8.0	8.0	6.5 - 8.5	7.5
Sulfate (ppm) - Naturally occurring; common industrial byproduct; byproduct of oil field activity	54	54	54	250	69
Total Dissolved Solids (ppm) - Total dissolved mineral constituents in water	248	248	248	500	375
Total Hardness (ppm / grains per gallons) - Naturally occurring calcium and magnesium	111	111	111	N/A	158 / 9.2

UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

We participated in gathering data under the UCMR in order to assist EPA in determining the occurrence of possible drinking water contaminants. If any unregulated contaminants were detected, they are shown in the tables elsewhere in this report. This data may also be found on EPA's web site at:

http://www.epa.gov/safewater/data/ncod.html

or you can call the Safe Drinking Water Hotline at 1.800.426.4791.