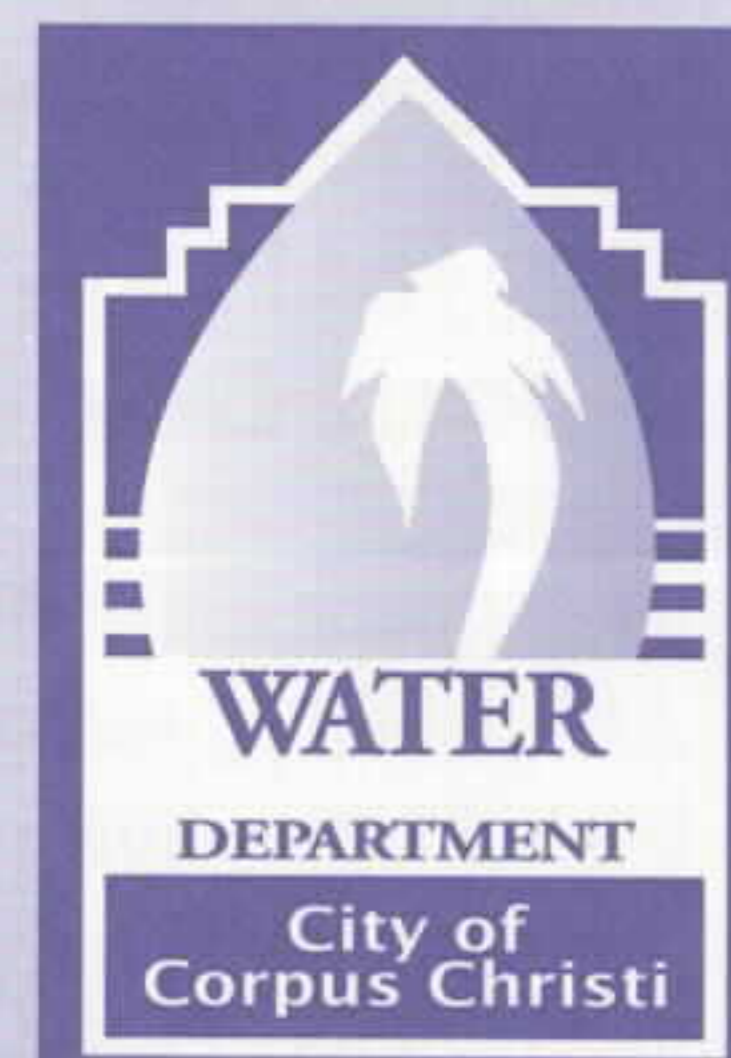




City of Corpus Christi

2000 Drinking Water Quality Report

Este reporte contiene información sobre su agua potable.
Para obtener una copia de este reporte en Español, por
favor llame al 361 / 857-1881.



June 2001

Dear Water Customers,

We are pleased to send you our third annual Drinking Water Quality Report. It also gives us an opportunity to share information on the progress of capital improvement projects. As you may know, our community depends on water from the Lake Corpus Christi / Choke Canyon Reservoir System and Lake Texana. These water resources serve as a source of clean, fresh water for our region.

We encourage you to become familiar with this third annual Drinking Water Quality Report. The analyses show that we met and exceeded the requirements set by the U.S. Environmental Protection Agency. This report complies with the regulations set forth by the U. S. Environmental Protection Agency (USEPA), as described in the 1996 Safe Drinking Water Act Amendments (Public Law 104-182).

We encourage your involvement in protecting our water supply from possible contaminants and pollutants, which may endanger the safe quality of water we enjoy everyday. We also encourage you to continue to use water wisely.

For more information, call us at (361) 857-1881. In addition, you can hear a daily report on the combined reservoir system level by calling the Water Hotline at 857-1600. Thank you for the opportunity to serve you and we invite you to visit our web site at <http://www.ci.corpus-christi.tx.us/services/water>
<http://www.cctexas.com/?fuseaction=main.view&page=1000>

Always at your service,

City of Corpus Christi Water Department

Your Water is Safe to Drink

Water is one of our most precious resources. We simply can't live without it. But because it flows so easily from our faucets, most of us don't appreciate what a valuable commodity it really is.

The third annual Water Quality Report is being delivered to every household in Corpus Christi. It is designed to inform you about the quality of our drinking water and how it compares to the guidelines set by the U. S. Environmental Protection Agency (USEPA). This report meets the requirements set forth by the Safe Drinking Water Act of 1996. Most importantly, we want you to know that when you drink treated tap water from the Corpus Christi reservoir system, you are drinking clean, high quality water that meets and exceeds state and federal government standards.

What USEPA Has to Say About Drinking Water

Many people are surprised to learn that ALL drinking water, including bottled water, is likely to contain some level of contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. You can obtain more information about contaminants and potential health effects by calling EPA's Safe Drinking Water Hotline 800-426-4791.

Where Your Water Comes From

Water quality in urban areas is dependent on the activities that occur within its watershed. Watersheds are those land areas that catch rain and drain to a specific stream, river or lake. As rain water travels over the land's surface and down the river, it dissolves naturally occurring minerals and picks up other contaminants. Untreated water may contain bacteria, viruses, salts and various organic chemical contaminants.

Knowing where your water comes from is the first step towards insuring that the quality of the water remains safe. Rainfall in the Nueces River Basin drains to one of the two reservoir systems that serve Corpus

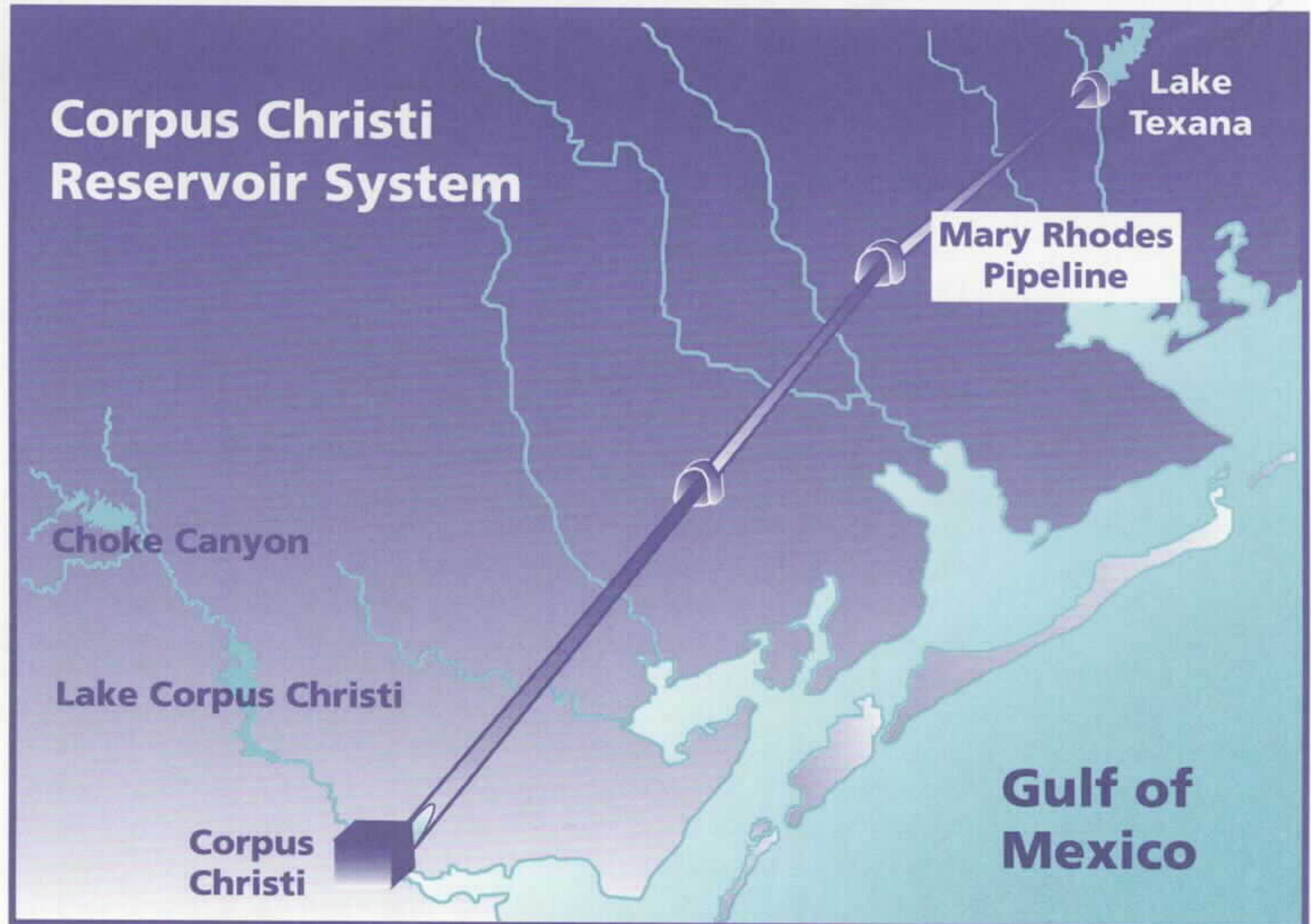
Christi and surrounding communities. Lake Corpus Christi located near Mathis has a capacity of 241,241 acre feet and Choke Canyon Reservoir has a storage capacity of 695,271 acre feet. Water from these two reservoirs is transported through the Nueces River. The process of purification begins when the raw water is pumped to the O. N. Stevens Water Treatment Plant.

Another source of water is Lake Texana which is pumped 101 miles through the Mary Rhodes Pipeline. The water goes directly to the treatment plant where it is blended with water from the Nueces River.

The Safe Drinking Water Act of 1996 requires all states to establish Source Water Protection Programs that analyze existing and potential threats to the quality of public drinking water. The Texas Natural Resource Conservation Commission (TNRCC) has begun a review of all of the state's drinking water sources. TNRCC anticipates to begin assessing our watershed within the next few years.

Special Information for Elderly, Infants, Cancer Patients or People with HIV/AIDS or Other Immune Problems

Some people may be more vulnerable to certain 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. For information about these special situations, talk to your physician or health care provider. The EPA and the Centers for Disease Control and Prevention (CDC) offers additional guidelines on appropriate means to lessen the risk of infection by cryptosporidium by calling the USEPA Safe Drinking Water Hotline (800-426-4791).



Your local Water Department is part of the City of Corpus Christi. As a municipal governmental agency, we are committed to excellence in the delivery of a vital natural resource. As a resident of the city, we encourage you to be involved and to learn more about our water supply system and the quality of water. City Council meetings are held most Tuesdays at City Hall located at 1201 Leopard Street. For meeting dates and times, please call the City Secretary's office at (361) 880-3105.

Capital Improvement Projects



O. N. Stevens Water Treatment Plant Sedimentation Basin Rehabilitation

Last year we reported on the capital improvements at the City's water treatment facility. We have seen enormous changes to upgrade SCADA technology which serves to monitor water pressure throughout the City. Plant operators are able to more efficiently address our city's water demand situations. The rehabilitation of Sedimentation Basins 1 and 2 was completed during year 2000. These projects will improve the quality of our drinking water that we enjoy today. Estimated project cost: \$7.8 million



South Staples Street Pump Station

The S. Staples Street Pump Station was recently completed at a cost of \$2.1 million.

This pump station is located on South Staples (FM 2444) south of the Corpus Christi Botanical Gardens and will be operated in conjunction with the new 7.5 million-gallon ground storage tank to provide additional pumping capacity to the south side of Corpus Christi.



Southside Transmission Main, Phase 1

The installation of a 60-inch water main represents the first section (approximately 42,500 feet) of an additional transmission system needed to increase hydraulic capacity for conveying water from the Stevens Water Treatment Plant to developing areas in southeast Corpus Christi and Padre Island. The water will be stored in the 7.5 million gallon Staples Street Storage Reservoir and repumped into the distribution system. The new water main will help during peak demand periods. This phase will be completed by June 2002. Estimated project cost: \$8.6 million

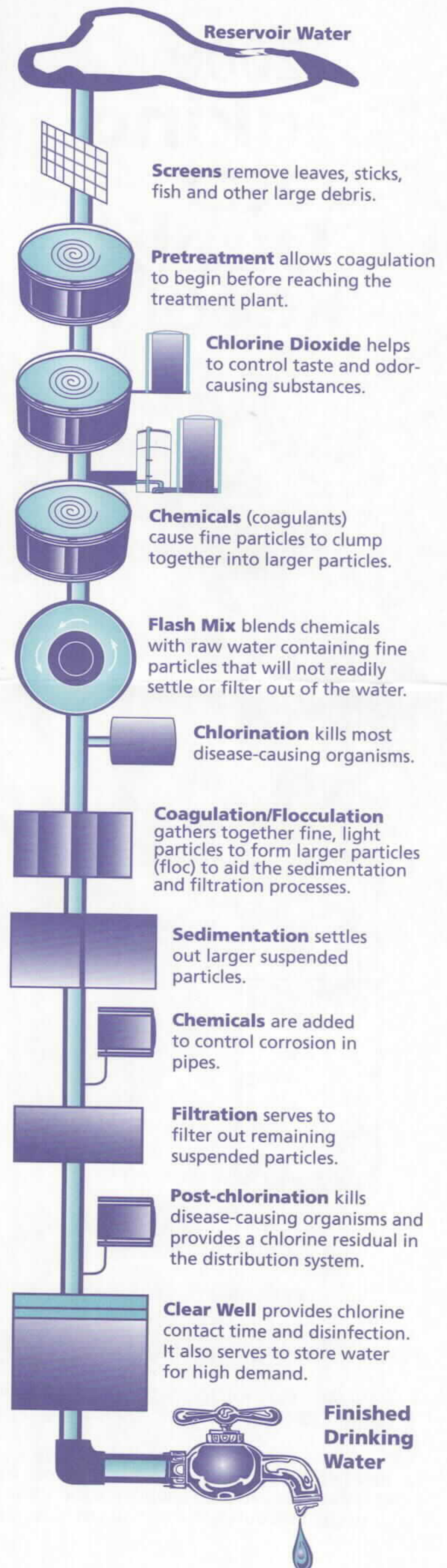
Inside A Water Treatment Plant

The Process that Makes Your Water Safe to Drink

Ever wondered how water is made safe to drink? A bucket of water drawn from the river reveals the murky water that we have to work with. This raw commodity is taken through a process of chemical treatment, disinfection, settling and filtration to make it safe to drink. Water treatment chemicals are added to remove impurities, kill harmful bacteria, eliminate taste and odors and help prevent tooth decay. The treatment process takes about 18 hours. During that time, more than 200 tests are conducted on the water.

Water can be very safe to drink and still have an unpleasant taste and odor. These are aesthetic qualities in our water and do not affect our health. Occasionally, water systems experience taste and odor problems often caused by such things as algae growth, a change of temperature or high rainfall.

Water Treatment Process



Water Quality Monitoring Results

The U.S. Environmental Protection Agency requires all water systems to provide an annual report on contaminants detected in their water supply. The data shown in this report are for year 2000. The City of Corpus Christi routinely monitors its water quality by collecting samples from our reservoir system and from various customer taps within our distribution system. The City of Corpus Christi is in compliance with all applicable drinking water regulations.

Regulated Constituents

Year	Constituents	Corpus Christi's Water Results		USEPA Regulations		Source of Constituent
		Average	Range ⁽¹⁾	MCL	MCLG	
Inorganic						
2000	Arsenic (ppb)	2.1	2.1	50	N/A	Erosion of natural deposits.
2000	Barium (ppm)	0.062	0.062	2	2	Discharge of drilling waste or from metal refineries; erosion of natural deposits
2000	Fluoride (ppm)	0.8	0.8	4	4	Water additive which promotes strong teeth; erosion of natural deposits
2000	Nitrate (ppm)	0.45	0.45	10	10	Runoff from fertilizer use; erosion of natural deposits
1999	Gross beta emitters (pCi/L) ⁽²⁾	5.5	5.5-5.5	50	0	Decay of natural and man-made deposits; erosion of natural deposits
Trihalomethanes						
2000	Total Trihalomethanes (ppb)	52.4 ⁽³⁾	45.0-56.0	100	0	By-product of drinking water chlorination
Unregulated Contaminants						
2000	Bromoform (ppb)	4.6	1.4-7.8	N/A	N/A	Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants
2000	Bromodichloromethane (ppb)	11	8.3-14	N/A	N/A	
2000	Chloroform (ppb)	6.9	6.3-7.5	N/A	N/A	
2000	Chlorodibromomethane (ppb)	10.6	5.3-16	N/A	N/A	
Synthetic Organic Compound						
2000	Atrazine (ppb)	0.16	0.16-0.16	3	3	Runoff from herbicide used on row crops
Turbidity						
		Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Levels		
2000	Turbidity (NTU) - Plant I	0.56	99.5	TT/AL = 0.5		Soil runoff
2000	Turbidity (NTU) - Plant II	14.00	98.5	TT/AL = 0.5		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.						
Lead and Copper						
		The 90th Percentile	Number of Sites Exceeding Action Level	Action Level		
1999	Lead (ppb)	1.8	0	15		Corrosion of household plumbing systems
1999	Copper (ppm)	0.053	0	1.3		Corrosion of household plumbing systems
Coliform Bacteria						
		Highest Monthly % of Positive Samples	MCL	MCLG		
2000	Total Coliform Bacteria*	1.7	Presence of coliform bacteria in ≥5% of monthly samples	0		Naturally present in the environment

* See explanation of coliforms in Frequently Asked Questions on Water Quality.

- (1) Range of detected levels, indicated for one or more samples collected in 2000.
 (2) 50 pCi/L = 4 mrems / year
 (3) Average of four quarterly water samples collected in the distribution system.

Review of Terms

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

Maximum Contaminant Level (MCL)
 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.

Maximum Contaminant Level Goal (MCLG) - 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.

mrem/year - Millirems per year (measurement of radiation absorbed by the body).

Nephelometric Turbidity Units (NTU)
 Measure of turbidity in water.

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

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.

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

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

This annual report is mailed to all Corpus Christi water customers as required by USEPA Safe Drinking Water Act of 1996. Additional copies are available in local libraries and recreational centers or can be found on our web site: www.ci.corpus-christi.tx.us/services/water
<http://www.cctexas.com/?fuseaction=main.view&page=1000>

Protect the Water We Drink

Water quality regulatory requirements are becoming more stringent as a result of public concern for safe drinking water. We are vigilant of our responsibility to meet USEPA and TNRCC requirements so that you can feel assured that each time you open a faucet, you receive clean drinking water. We are challenged by the fact that contaminants can make their way into the source of our drinking water. Contaminants, sometimes found on the surface, come from various sources in our environment. Products used at home or work often contain chemicals that, when discarded, contribute to the contamination of water resources. Some of the household products that may contribute to contamination include pesticides, paints, furniture strippers, flea and collar sprays, rat poison, herbicides, insecticides ammonia-based cleaners, disinfectants, bleach cleaners, abrasive cleaners, pool chemicals, batteries, used oil, brake and transmission fluids and antifreeze.

We are all responsible for preventing any potential environmental hazard. What may be a small amount of a contaminant that drains from a driveway will add up over the course of the years. With everyone's help, hazardous waste products can be disposed of properly.

The City of Corpus Christi Solid Waste Services provides free Hazardous Waste Collection Days four times a year. We urge everyone to participate and help keep our water safe.

What's the Lake Level?

Call the Water Hotline to find out.
(361) 857-1600

Public Meeting

A public meeting will be held on
Wednesday, June 27, 2001
at 6:30 p.m. to review the
contents of the 2000
Drinking Water Quality Report

Water Utilities Conference Room
2726 Holly Road
Corpus Christi, Texas

Frequent Questions on Water Quality

How does Corpus Christi's water system rate?

Corpus Christi has a very long track record of meeting all federal, state and local standards and has received the highest possible "Superior Water System" rating by the Texas Natural Resource Conservation Commission.

What are Cryptosporidium and Giardia?

Cryptosporidium and Giardia are microscopic parasites that affect the digestive tracts of humans and animals. Corpus Christi has tested for Cryptosporidium and Giardia in both untreated river water and in treated water during 2000 and, the parasites were never detected.

What are some of the minerals, metals and other constituents found in our drinking water?

Drinking water has constituents that come from minerals and metals, which remain in the water even after treatment. During 2000, TNRCC tested a sample of our drinking water for the constituents listed below. You may be interested in the following information. These constituents do not relate to public health, but are important to the aesthetic quality of our water.

Constituent	Value
Bicarbonate	126 ppm
Calcium	44 ppm
Dilute Conductance	557 umho/cm
pH	7.8
Sodium	57 ppm
Total Alkalinity	103 ppm
Total Hardness	123 ppm or 7.2 grains per gallon
Chloride	69 ppm
Sulfate	43 ppm
Dissolved Solids	284 ppm

What are coliforms?

In the water industry, coliform bacteria are used as an indicator of microbial contamination of drinking water because they are easily detected and are found in the digestive tract of warm-blooded animals. While not themselves disease producers, 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 bacteriologically safe for human consumption. Fecal coliform (mostly E-coli), is a portion of the coliform bacteria group originating in the intestinal tract of warm-blooded animals that passes into the environment as feces. Fecal coliform is often used as an indicator of the fecal contamination of a domestic water supply.

Does turbidity have any health effects?

Turbidity has no health effects; however,

turbidity can interfere with disinfection and provide a medium for microbial growth. It may indicate the presence of disease-causing organisms which may include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. Turbidity must be less than 0.5 NTU in 95.% of the monthly water samples.

What causes taste and odor in my drinking water?

Hot South Texas summer weather results in a rapid algae growth in our surface water reservoirs. When the problem is detected, it is controlled by using potassium permanganate at the water treatment plant. In as much as taste and odor are sometimes apparent, the water is safe to drink.

Do we have hard water?

Hard water is defined by the amount of calcium and magnesium present in the water. Corpus Christi's drinking water is considered moderately hard. Testing conducted in 2000 showed a total hardness of 123 milligrams per liter or about 7.2 grains per gallons.

Is fluoride added to Corpus Christi's drinking water?

Fluoride, which is a substance added to reduce cavities, is added to our water. The American Dental Association recommends a concentration of 1 part per million. Bottled water may or may not contain fluoride. Corpus Christi's drinking water has an average fluoride value of 0.8 parts per million (ppm).

Why does my water seem cloudy?

Water that is cloudy is often the result of air which is trapped in the water. Once the water is drawn from the faucet and allowed to settle, the water will appear clear. Air bubbles do not affect the quality of water; however, you can report this problem to the Water Department dispatcher at 857-1888.

Is my water safer with water purification devices?

Water supplied by the City of Corpus Christi is safe to drink. We recognize that it is your personal choice to purchase water purification devices. At the same time, purification devices have been known to cause problems in the quality of drinking water due to the lack of proper filter replacement. These devices are not tested or regulated by the state or federal government.

Is chlorine a safe disinfectant for drinking water?

Corpus Christi uses chlorine and ammonia to disinfect our drinking water. Chlorine has been used in municipal water treatment since 1908 and is the most effective way to ensure that water stays disinfected as it travels through our distribution system. Chlorine prevents water-borne epidemics such as cholera, typhoid, and hepatitis.