



City of Copperas Cove

## **WATER QUALITY REPORT**

2004

# FROM THE CITY OF COPPERAS COVE

The 2004 Annual Report on Drinking Water Quality describes the Public Water System of the City of Copperas Cove, its water source and quality of our water supply. This report also conforms to the new Federal regulation to provide this annually. The City supported the passage of this regulation and we believe this information provides a valuable service to our customers.

In this report we attempt to balance your right to know against the sheer volume of information that we could provide. If some of this information appears complex, it is because drinking water is a complex business.

Our goal is to provide you with the best and safest drinking water that we can. The City's water system has been rated as a Superior Water System by the Texas Commission on Environmental Quality (TCEQ), the regulatory agency for the State of Texas.

Safe drinking water is our main concern for our customers. ***The bottom line is this: Our water is safe to drink. We have no water quality violations and our water quality meets, or is better than, State and Federal standards.***

The information in this report is also submitted to the TCEQ and to the United States Environmental Protection Agency (EPA). Both agencies monitor our compliance with the many regulatory standards and testing protocols required to assure safe drinking water.

## For Information About This Report Contact

Robert M. McKinnon  
Director of Water/Wastewater  
254-547-0751

TCEQ  
<http://www.tceq.state.tx.us>

Daniel Hawbecker  
Water Department Superintendent  
254-547-2416

## PUBLIC PARTICIPATION OPPORTUNITIES

The City of Copperas Cove is Mayor/Council governed, to participate in meetings, call 254-547-4221.

COUNCIL MEETS THE *FIRST & THIRD TUESDAYS* OF EACH MONTH  
UNLESS OTHERWISE POSTED.  
COUNCIL MEETINGS START AT 7:00 P.M.

## FOR MORE WATER QUALITY INFORMATION

Bell County W.C.I.D. #1  
P.O. Box 43  
Killeen, TX 76540-0043  
254-526-6343  
<http://www.bellco-wcid.org>

TCEQ  
<http://www.tceq.state.tx.us>

EPA Safe Drinking Water  
Hotline 1/800-426-4791  
<http://www.epa.gov/OW>

### En Espanola

Estereporte incluye informacion importante sobre el agua para tomar.  
Para obtener una copia de esta informacion traducida al Espanola,  
favor de llamar al telefono - (254) 547-0751.

**Other non-English speaking  
customers requiring translation,  
please call -- (254) 547-0751.**

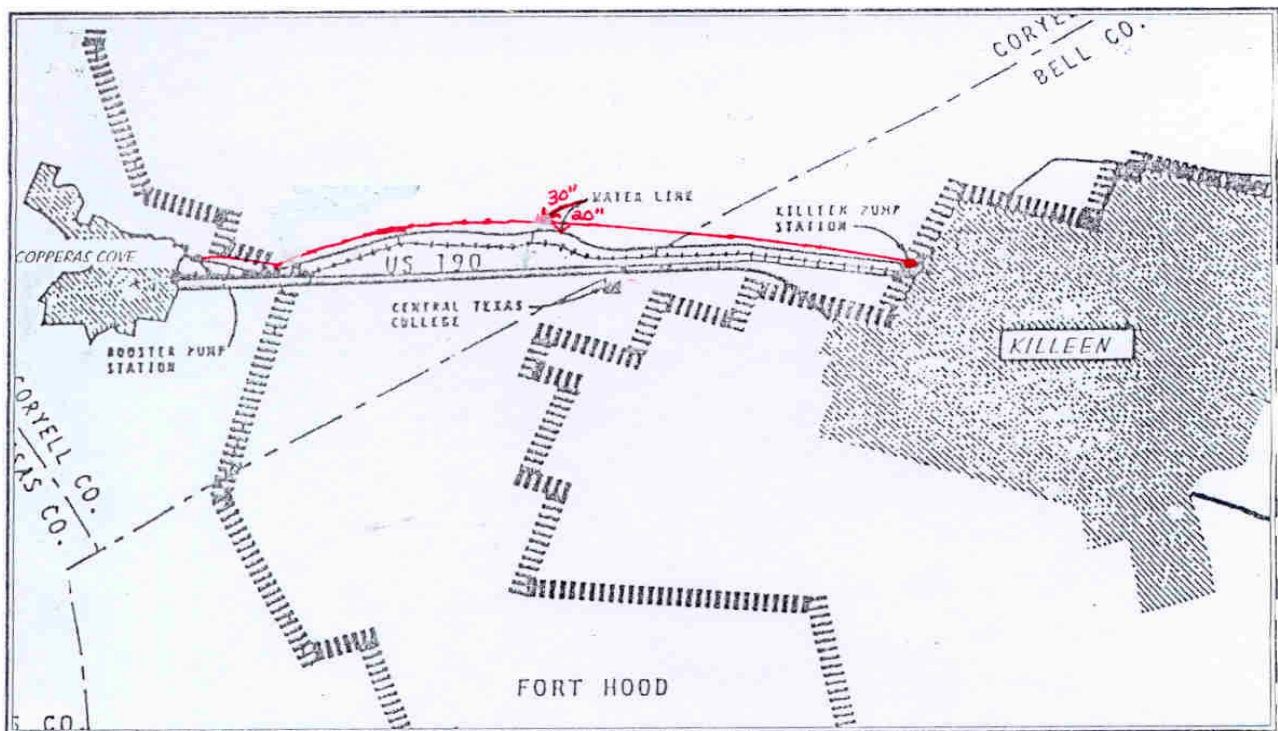
## CITY OF COPPERAS COVE SERVICE AREA

The City of Copperas Cove obtains all of its water, pre-treated from Bell County Water Control and Improvement District #1(WCID #1), from Lake Belton surface water supply. The TCEQ has completed a source water susceptibility assessment for all drinking water systems that own their source(s). This report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The system from which we purchase our water received the assessment report. We want to emphasize that this assessment does not indicate or imply any health risks. Contact our water system for more information about this report.

The City's Water Distribution System starts at a 500,000 gallon ground storage tank located in Killeen. From there, two sets of supply pumps convey water through two different parallel transmission lines. One is a twenty (20") inch line, and the other is a thirty (30") inch line. Once the water reaches Copperas Cove, it is distributed to twelve (12) storage tanks for a combined storage of 7.166 million gallons.

Within the City, the Water Distribution Department maintains over 235 miles of water lines of various sizes, 1,000 fire hydrants, pumps/motors, and approximately 11,300 water meters. In addition, the City supplies water to Topsey Water Corporation, Cedar Grove Mobile Home Park, and Central Texas College.

The City is currently able to purchase up to 13.5 million gallons of water per day from WCID #1).



## STATE AND FEDERAL AGENCIES MONITOR WATER QUALITY

In order to ensure that tap water is safe to drink, the TCEQ and the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline at 1-800-426-4791.



The sources of drinking water (both tap 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, radio active 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, agriculture 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.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

### About the following pages

The pages that follow list all of the federally regulated or monitored constituents which have been found in your drinking water. The United States Environmental Protection Agency requires water systems to test up to 97 constituents. Listed are constituents that were detected in your drinking water.

### **SPECIAL NOTICE FOR THE ELDERLY, INFANTS, CANCER PATIENTS, PEOPLE WITH HIV/AIDS OR OTHER IMMUNE 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. EPA/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).

### **IMPORTANT DEFINITIONS**

#### Maximum Contaminant Level (MCL)

The highest level of a contaminant that is allowed in drinking water.

The MCL's are set as close to the MCLG's as feasible using the best 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.

MCLG's allow for a margin of safety.

#### Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

#### Action Level (AL)

Used in place of MCL's. Triggers additional requirements but exceeding action levels does not constitute a violation as does exceeding a MCL.

NTU - Nephelometric Turbidity Units

MFL - million fibers per liter

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 (ug/l)

ppt - parts per trillion, or nanograms per liter

ppq - parts per quadrillion, or picograms per liter

### INFORMATION OF CRYPTOSPORIDIUM RESULTS

Cryptosporidium is naturally present in bodies of water throughout the world. Surface water supplies are particularly vulnerable if they receive runoff from human or animal waste. Our water supplier WCID-#1, participated in the EPA's Information Collection Rule (ICR). During this 18 month period, July 1997 to December 1998, the WCID-#1 collected monthly samples to check for Cryptosporidium. The results came back no organisms found in your drinking water.

### SECONDARY CONSTITUENTS

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, odor, and color 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. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

**2004 TOTAL ORGANIC CARBON**

Total Organic Carbon (TOC) has no adverse health affects. TOC provides a medium for the formation of disinfectant byproducts when water is disinfected. Disinfection is necessary to ensure water does not have unacceptable levels of pathogens. By-products of disinfection include Trihalomethanes (THM's) and Halo Acetic Acids (HAA's) which are reported elsewhere. Test results received from Bell County Water Control and Improvement District #1-2004

<i>Constituent</i>	<i>Lowest Removal Percentage</i>	<i>Range of Detected Levels</i>	<i>T T</i>	<i>MCLG</i>	<i>Units of Measures</i>	<i>Source of Containment</i>
Total Organic Carbon	9.7%	Raw - 1.44 - 5.35 Finish - 1.36 - 6.92	Coagulation enhances filtration	N/A	MG/1	Naturally present in the environment.

**2004 TURBIDITY**

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.

**DETECTED CONTAMINANTS TABLE 1 MICROBIOLOGICAL CONTAMINANTS** Test results received from Bell County Water Control and Improvement District #1. - - 2004

<i>Constituent</i>	<i>Highest Single Measurement</i>	<i>Turbidity Limits</i>	<i>Unit of Measurement</i>	<i>Lowest Monthly % of Samples Meeting Limit</i>	<i>Source of Constituent</i>
Turbidity / (NTU)	0.49	1.0	NTU	98.5%	Soil Runoff
<i>State Regulations: Turbidity must stay below 0.5 NTU 95% of the time.</i>					

**DETECTED CONTAMINANTS TABLE 1 (con't) INORGANIC CONTAMINANTS** Test results received from Bell County Water Control and Improvement District #1. - - 2004

<i>Constituent</i>	<i>Highest Level at any Sampling Point</i>	<i>Point of Detected Levels</i>	<i>Unit of Measurement</i>	<i>MCL</i>	<i>MCLG</i>	<i>Source of Constituent</i>
Barium	0.0504	0.0020	mg/l	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	0.74	.01	mg/l	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	0.24	0.1	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks sewage; Erosion of natural deposits.
Selenium	ND	0.004	mg/l	50	50	Discharge from petroleum and metal refineries; erosion of natural deposit; Discharge from mines.
Gross Beta Emitters	1.550	0.0000 -- 3.3000	pci/l	50	0	Decay of Natural and man-made deposits..

DETECTED CONTAMINANTS TABLE 1 (con't) <u>Test results received from Bell County Water Control and Improvement District #1. - - 2004</u>						
INORGANIC CONTAMINANTS						
<i>Constituent</i>	<i>Highest Level at any Sampling Point</i>	<i>Point of Detected Levels</i>	<i>Unit of Measurement</i>	<i>MCL</i>	<i>MCLG</i>	<i>Source of Constituent</i>
Arsenic	0.500	Oppb 2 2002*				Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
*These arsenic values are effective January 23, 2006. Until then, MCL is 50 ppb and there is currently no MCLG.*10 <sup>0</sup>						
SYNTHETIC ORGANIC CONTAMINANT INCLUDING <u>Test results received from Bell County Water Control and Improvement District #1 -- 2004.</u>						
<i>Constituent</i>	<i>Highest Level at any Sampling Point</i>	<i>Range of Detected Levels</i>	<i>Unit of Measurement</i>	<i>MCL</i>	<i>MCLG</i>	<i>Source of Constituent</i>
Atrazine	0.33	.10	ppb	3	3	Runoff from herbicide used on row crops.

DISINFECTION BY-PRODUCTS TEST RESULTS RECEIVED FROM TCEQ - - 2004						
<i>Constituent</i>	<i>Average Level</i>	<i>Minimum Level</i>	<i>Maximum Level</i>	<i>MCL</i>	<i>Unit of Measurement</i>	<i>Source of Constituent</i>
Total Haloacetic Acid	9.450	5.2	13.6	60	ppb	By-product of drinking water disinfection
Total Trihalomethanes	12.225	8.7	14.3	80	ppb	By-product of drinking water disinfection.

2004 UNREGULATED CONTAMINANTS: TEST RESULTS RECEIVED FROM BELL COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT #1 - - 2004			
<i>Constituent</i>	<i>Average of all Sampling Points</i>	<i>Range of Detected Levels</i>	<i>Reasoning for Monitoring Level</i>
Chloroform	19.1	1 ug/l	Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.
Bromoform	1.1	1 ug/l	Unregulated contaminant monitoring helps EPA to determine where contaminants occur and whether it needs to regulate those contaminants.
Bromodichloromethane	16.2	1 ug/l	Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.
Dibromochloromethane	7.9	1 ug/l	Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Lead and Copper						
Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Constituent
2004	<i>Copper</i>	0.1840	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
2004	<i>Lead</i>	1.0000	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.

### COLIFORMS

What are Coliforms ?

Coliform bacteria are used as indicators of microbial contamination of drinking water because they are easily detected and 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 domestic water supply.

Total Coliform					
Year	Constituent	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Source of Constituent
2004	Total Coliform Bacteria	2.5	*	Presence	Naturally present in the environment

2004 Total Coliform Bacteria 2 \* Naturally present in the environment.

\* Presence of coliform bacteria in 5% or more of the monthly samples. Had a total of two (2) samples come back positive for coliform bacteria for the year.

**Fecal Coliform NOT DETECTED**



DISINFECTANT RESIDUALS: RESULTS FROM COPPERAS COVE WATER DEPARTMENT							
Year	Constituent	Highest Average	Range of Detects (Low - High)	MRDL	MCLG	Units	Source
2004	Chloramines	3.7	2.0 - 3.8	4	N/A	ppm	Disinfectant used to control microbes.

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

Year (Range)	Constituent	Average Level	Minimum Level	Minimum Level	Limit	Unit of Measure	Source of Constituent
2004-2004	Aluminum	97.325	6	157	50	ppb	Abundant naturally occurring element.
2004-2004	Bicarbonate	117.000	110	131	NA	ppm	Corrosion of carbonate rocks such as limestone.
2004-2004	Calcium	42.475	39.7	44.8	NA	ppm	Abundant naturally occurring element.
2004-2004	Chloride	24.633	23.7	25.6	300	ppm	Abundant naturally occurring element, used in water purification; byproduct of oil field activity.
2004-2004	Copper	0.001	0	0.0011	NA	ppm	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives.
2004-2004	Hardness as Ca/Mg	140.000	134	151	NA	ppm	Naturally occurring calcium and magnesium.
2004-2004	Magnesium	9.148	8.51	9.7	NA	ppm	Abundant naturally occurring element.
2004-2004	Nickel	1.793	1.5	2.07	NA	ppb	Erosion of natural deposits.
2004-2004	pH	7.705	7.59	7.83	NA	units	Measure of corrosivity of water.
2004-2004	Sodium	14.950	14	16	NA	ppm	Erosion of natural deposits, byproduct of oil field activity.
2004-2004	Sulfate	23.925	23	26.7	300	ppm	Naturally occurring; common industrial byproduct, byproduct of oil field activity.
2004-2004	Total Alkalinity as CaCO <sub>3</sub>	117.000	110	131	NA	ppm	Naturally occurring soluble mineral salts.
2003-2003	Total Dissolved Solids	218.250	213	230	1000	ppm	Total dissolved mineral constituents in water.
2000-2000	Total Hardness as CaCO <sub>3</sub>	168.000	165	171	NA	ppm	Naturally occurring calcium.

## **YOU CAN PROTECT THE WATER AFTER IT REACHES YOU:**

When the District's water reaches your home, it is clean and meets or is better than all state and federal water quality requirements. But without proper precautions, water can be contaminated if a sudden pressure drop in the pipe causes contaminated water to be pulled from your home or yard into your plumbing.

### **TO PROTECT WATER QUALITY ONCE IT REACHES YOU, TAKE THE FOLLOWING STEPS:**

- Do not leave a garden hose connected to a faucet with one end submerged in a swimming pool, bucket, dog's bath water....anything.
- Keep an air gap between your kitchen or bathroom faucet and the water in the sink. Do not attach a hose to your faucet and have the other end submerged in the sink or tub.
- Do not allow garden hoses to be directly connected to pressurized tanks that contain pesticides, herbicides or toxic materials of any kind. Insist that an air gap be maintained between the water source and the tank when the tank is being filled.
- Do not leave your kitchen sink spray nozzle submerged in the sink.
- If you have the typical, older style toilet that fills from the bottom, be cautious about putting toilet bowl cleaners in the tank. If the water pressure drops and the fill valve in the toilet tank is leaking water from the tank, that water can be drawn back into the water lines, especially if there is a faucet open in the house.
- If you have an automatic sprinkler system, makes sure that you have a backflow prevention device and that it is working properly.