

City of Paris

2008 Drinking Water Quality Report

Your Drinking Water is SAFE

The City of Paris is committed to providing safe and dependable drinking water to the citizens of Paris and Lamar County. Utilities Department employees take pride in supplying water of high quality and quantity that consistently exceeds the requirements set by state and federal drinking water standards. In 2008 the City treated over 3.86 billion gallons of water and distributed it through 257 miles of 2" – 60" water lines. The Texas Commission on Environmental Quality (TCEQ) has assessed the City of Paris water system and has determined our water is safe to drink. This determination was made by the TCEQ based on information in the attached tables for tests performed during 2008. The City of Paris water system has earned a rating of "Superior" by the TCEQ.

It is important to the City of Paris that you have this information about your drinking water so you can have confidence in the water we produce. The following tables are a list of what has been found in the water and at what levels. Many of the listed elements are not actually contaminants but natural chemical and physical properties inherent to all drinking water, including bottled water. Most of these parameters are not related to public health and are not regulated by state and federal standards. These unregulated items have been included for your information since they can have an effect on the aesthetic quality of water and are often significant to many industrial water users.

We Welcome Your Comments

If you have questions concerning your drinking water, would like to schedule a speaker for your group or take a tour of the water treatment plant, please call the City of Paris Utilities Department at (903) 784-2464. For questions about your water utility bill, please call the Water Billing Office at (903) 784-9270.

The Paris City Council meets at 5:30 PM on the second and fourth Monday of each month at the City Hall Council Chambers, 107 East Kaufman St. Special council meetings are called as needed. Call the City Manager's office at (903) 784-9202 for special meeting dates and times. You can also subscribe to meeting announcements by registering through the City's website at www.paristexas.gov

For water conservation information please refer to the following EPA website <http://www.epa.gov/watersense/>

All Drinking Water May Contain Contaminants

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 (1-800-426-4791) or by accessing the EPA website at <http://www.epa.gov/safewater/dwh/index.html>

Special Information for People with Weakened Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer and 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/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* or other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791) or by accessing the EPA website at <http://www.epa.gov/safewater/dwh/index.html>

Cryptosporidium

Cryptosporidium is a waterborne microscopic parasite that invades the digestive tract of humans and animals. This parasite can cause diarrhea, cramps, fever, and other gastrointestinal disorders. No specific drug therapy has proven effective against infection from this parasite but people with healthy immune systems typically recover within about two weeks. Individuals with weak immune systems, however, may not be able to develop resistance to the parasite and may suffer long term chronic illnesses or even death. *Cryptosporidium* is highly resistant to disinfection by chlorine and removal by proper filtration is the method used by most water treatment plants. The City of Paris began monthly monitoring for *Cryptosporidium* in the untreated lake water in April 2008 and no *Cryptosporidium* was detected in any monthly sample. The monitoring continues through March 2010.

Where Do We Get Our Drinking Water?

All City of Paris water comes from surface water sources. The majority of water is from Pat Mayse Lake with supplement from Lake Crook. The watersheds of both lakes are typically used for agriculture, grazing, and recreation with no industrial or waste treatment plant discharges to contribute pollutants to the water supply. Some agricultural chemicals, such as herbicides, are

occasionally detected in the source water but at levels far below concentrations considered unsafe. The TCEQ has reviewed all Texas drinking water sources and a source water assessment for our system has been completed. Information on the source water assessment can be obtained by contacting the City of Paris Utilities Dept. at (903) 784-2464.

Taste and Odor

Your water can be completely safe to drink and still have an unpleasant taste and odor due to non-health related water quality problems. Microscopic organisms such as algae will periodically produce a “bloom” in the lake causing taste and odor problems in the treated water. Hot dry periods and high water temperatures occasionally cause a die off of vegetation in the lake contributing to taste and odor as well. Lake “turnover” on a few occasions has caused taste and odor problems but algae are typically the cause of most taste and odor incidents. During these events, powdered activated carbon is added at the treatment plant to remove taste and odor. Potassium permanganate may be added at the water intake pump station to oxidize taste and odor-producing organic materials when needed. In spite of all taste and odor removal techniques, some persons may still detect an unpleasant taste and/or odor; however, the water is still safe to drink.

Understanding the Tables

The following tables list the chemical and physical constituents detected in the City of Paris treated water in 2008. The list of definitions explains the terms used in the tables.

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

Coliforms - The *Total coliform* bacteria group 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 necessarily disease producers themselves, they are often found in association with other microbes capable of causing disease. The total coliform group is hardier than many disease causing organisms; therefore, their absence from drinking 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 fecal contamination of domestic water supplies.

Maximum Contaminants 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.

Maximum Contaminant Level (MCL) - The highest level of a contaminant allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.

Nephelometric Turbidity Units (NTU) - A standard unit used to measure the turbidity of water.

Parts per billion (ppb) - Concentration of a constituent in billionths. Often expressed as micrograms per liter. One part per billion is equivalent to one penny in ten million dollars.

Parts per million (ppm) - Concentration of a constituent in millionths. Often expressed as milligrams per liter. One part per million is equivalent to one penny in ten thousand dollars.

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

Turbidity - A measure of the cloudiness of water measured in NTUs. Turbidity is an indicator of the effectiveness of the treatment plant’s sedimentation and filtration systems. Turbidity has no health effects. However, turbidity can interfere with the disinfection process and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms such as bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea, headaches, and other gastrointestinal disorders.

Regulated at the Treatment Plant

<i>Constituent</i>	<i>Level Detected</i>	<i>MCL</i>	<i>MCLG</i>	<i>Possible Source of Substance</i>
Fluoride (ppm)	0.86	4.0	4.0	Water treatment additive to promote strong teeth; Erosion of natural deposits.
Nitrate (ppm)	0.2	10	10	Runoff from fertilizer; Leaching from septic tanks, sewage; Erosion of natural deposits.
Atrazine (ppb)	0.19	3	3	Runoff from herbicide used on row crops.

<i>Constituent</i>	<i>Measurement</i>	<i>Lowest % of Monthly Samples Meeting Limits</i>	<i>MCL</i>	<i>MCLG</i>	<i>Possible Source</i>
Turbidity	Highest: 0.50	99.00	0.3*	N/A	Soil runoff in source water.

*Turbidity MCL is exceeded if more than 5% of all samples taken in a single month are greater than 0.3 NTU. The treatment technique must not exceed 1 NTU at any time.

<i>Constituent</i>	<i>Source Water</i>	<i>Treated Water</i>	<i>Removal Ratio*</i>	<i>Possible Source</i>
Total Organic Carbon (ppm)	Highest: 11.30	Highest: 3.32	Highest: 185%	Naturally occurring in source water.
	Lowest: 4.83	Lowest: 2.32	Lowest: 82%	
	Average: 6.18	Average: 3.04	Average: 115%	

Total Organic Carbon has no adverse health effects but is monitored to determine the potential to form possible harmful disinfection byproducts from the water treatment process.

*Removal ratio is the percent removed by the treatment process divided by the percent removal required by the TCEQ.

Unregulated Contaminants Monitored at the Treatment Plant

<i>Constituent</i>	<i>Average of All Sampling Points</i>	<i>Range of Detected Levels*</i>
Chloroform (ppb)	46.25	46.25
Bromodichloromethane (ppb)	17.53	17.53
Dibromochloromethane (ppb)	2.32	2.32

Reason for Monitoring: Unregulated contaminant monitoring helps EPA determine where certain contaminants occur and whether future regulation is needed. There is no maximum contaminant level for these disinfection byproducts prior to entry into the distribution system.

*Range is based on number of samples collected during any one year; only one sample was required for 2008.

Regulated in the Distribution System

<i>Constituent</i>	<i>Total Number of Positive Samples in Any Month</i>	<i>MCL</i>	<i>MCLG</i>	<i>Possible Source</i>
Total Coliform	1	2/Month*	0	Human and animal fecal wastes. Naturally present in the environment.

*The City of Paris submits thirty (30) samples per month for Coliform testing. An MCL violation occurs when two (2) or more of any samples are Coliform positive in a single month.

<i>Constituent</i>	<i>Average</i>	<i>Minimum</i>	<i>Maximum</i>	<i>MCL</i>	<i>MCLG</i>	<i>Source</i>
Chloramine (ppm)	2.17	0.5	3.8	4.0	<4.0	Disinfectant used to control microbes.

Chloramine residuals are collected in the distribution system daily. No samples collected in 2008 exceeded the MCL or were below the minimum required level.

<i>Constituent</i>	<i>Average of All Quarterly Samples</i>	<i>Range of Detected Levels</i>	<i>MCL</i>	<i>MCLG</i>	<i>Possible Source</i>
Total Trihalomethanes (ppb)	73.3	52.2 – 101.1	80*	0	Byproduct of drinking water chlorination.

*MCL of 80 ppb is violated when the average of four (4) consecutive quarterly samples exceeds 80.

<i>Constituent</i>	<i>Average</i>	<i>Range of Detected Levels</i>	<i>MCL</i>	<i>MCLG</i>	<i>Possible Source</i>
Total Haloacetic Acids (ppb)	49.4	31.8 – 70.2	60*	0	Byproduct of drinking water chlorination.

*MCL of 60 ppb is violated when the average of four (4) consecutive quarterly samples exceeds 60.

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts

<i>Constituent</i>	<i>Average of All Bi-monthly Samples</i>	<i>Range of Detected Levels</i>	<i>MCL</i>	<i>MCLG</i>	<i>Possible Source</i>
Total Trihalomethanes (ppb)	81.4	47.8 – 121.6	N/A	N/A	Byproduct of drinking water chlorination.
Total Haloacetic Acids (ppb)	50.3	30.6 – 84	N/A	N/A	Byproduct of drinking water chlorination.
This evaluation is required by the EPA to determine the range of Total Trihalomethanes and Haloacetic Acids in the distribution system for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. The EPA requires this data to be reported in this section.					

Regulated at the Tap

<i>Constituent</i>	<i>90th Percentile of Sampling Event</i>	<i>Action Level</i>	<i>Number of Sites Exceeding Action Level</i>	<i>Possible Source</i>
Lead (ppb)	3.5 (2007 Data)	15	0	Corrosion of household plumbing; Erosion of natural deposits.
Copper (ppm)	0.1 (2007 Data)	1.3	0	Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservatives.
The City of Paris is on reduced monitoring for Lead and Copper due to historically low concentrations. Monitoring is performed every three years.				

Non-regulated and Secondary Constituents

<i>Constituent</i>	<i>Level Detected</i>	<i>Secondary Limit</i>	<i>Possible Source</i>
Alkalinity, Total (ppm)	40	N/A	Erosion of natural deposits.
Bicarbonate (ppm)	40	N/A	Erosion of natural deposits.
Chloride (ppm)	9	300	Erosion of natural deposits.
Total Dissolved Solids (ppm)	131	1,000	Byproduct of water treatment; Erosion of natural deposits.
Sulfate (ppm)	46	300	Erosion of natural deposits.
Total Hardness (ppm)	68	N/A	Erosion of natural deposits.

Thank You

The City of Paris