

City of Paris

2001 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. The Texas Natural Resource Conservation Commission (TNRCC) has assessed the City of Paris water system and has determined our water is safe to drink. This determination was made by the TNRCC based on information in the attached tables for tests performed during 2001 and no water quality standard was violated at any time during the year. The City of Paris is rated a Superior water system by the TNRCC.

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. 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.

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**).

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**).

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. *Cryptosporidium* was the organism that made national news several years ago causing thousands to become ill and several deaths in people with weakened immune systems when the Milwaukee, Wisconsin water system became contaminated due to poor filtration methods. 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 water treatment plant consistently exceeds state and federal filtration requirements for removal of both *Cryptosporidium* and *Giardia*, another waterborne parasite causing similar gastrointestinal illnesses.

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 TNRCC has been reviewing all Texas drinking water sources. The source water assessment process is expected to be completed in the near future.

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, potassium permanganate is added to the raw lake water at the water intake pump station to oxidize taste and odor-producing organic materials. Powdered activated carbon is added at the treatment plant to further remove taste and odor. 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 2001. 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 more hardy 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>
Atrazine (ppb)	Highest Level: 0.84 Range of all Samples: 0.48 - 0.84	3.0	0	Runoff from herbicide used on row crops.
Barium (ppm)	0.036	2.0	2.0	Discharge from drilling wastes or metal refineries; Erosion of natural deposits.
Fluoride (ppm)	0.7	4.0	4.0	Water treatment additive to promote strong teeth; Erosion of natural deposits.
Nitrate (ppm)	0.17	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

<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: 0.32 Average: 0.10	100	0.5*	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 0.5 NTU. The treatment technique must not exceed 5 NTU at any time.					

Unregulated Contaminants Monitored at the Treatment Plant

<i>Constituent</i>	<i>Average of All Sampling Points</i>	<i>Range of Detected Levels</i>	<i>Reason for Monitoring</i>
Chloroform (ppb)	33.5	18.0-49.0	Unregulated contaminant monitoring helps EPA determine where certain contaminants occur and whether future regulation is needed
Bromodichloromethane (ppb)	9.3	7.5-11.0	Unregulated contaminant monitoring helps EPA determine where certain contaminants occur and whether future regulation is needed
Chlorodibromomethane (ppb)	1.3	1.2-1.4	Unregulated contaminant monitoring helps EPA determine where certain contaminants occur and whether future regulation is needed

Regulated in the Distribution System

<i>Constituent</i>	<i>Total Number of Positive Samples in 2001</i>	<i>MCL</i>	<i>MCLG</i>	<i>Possible Source</i>
Total Coliform	1	1/Month*	0	Human and animal fecal wastes; Naturally present in the environment

*The City of Paris submits thirty (30) samples per month to the Paris-Lamar County Health Dept. for Coliform testing. An MCL violation occurs when 5% or more of any samples are Coliform positive in a single month.

<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)	57.2	42.1-71.5	100*	0	By-product of drinking water chlorination

*MCL of 100 ppb is violated when the **average** of four (4) consecutive quarterly samples exceeds 100. Total trihalomethanes are the sum of Chloroform, Bromoform, Dibromochloromethane and Bromodichloromethane.

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)*	1.7	15	0	Corrosion of household plumbing; Erosion of natural deposits.
Copper (ppm)*	0.066	1.3	0	Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservatives.

Note: *The City of Paris has been conducting this monitoring since 1992 with the initial sampling of sixty high risk households monitored during two consecutive six month periods. After passing the initial monitoring, we qualified for reduced monitoring of 30 sites every three years and have passed all of these monitoring events. Our next monitoring event will be Summer, 2004. Lead has never been detected in the source water from the lakes or in the treated water leaving the City of Paris treatment plant. However, lead has been found in some households with lead-bearing plumbing materials. The routine monitoring of certain households at highest risk is used to determine if our treated water is of a corrosive nature that could cause high levels of lead and/or copper to leach from the citizen's plumbing and fixtures. Water is determined to be corrosive if the 90th percentile sample (no more than 10% of samples during any monitoring period) exceeds the action level for lead or copper.

Unregulated and Secondary Constituents

Constituent	Level Detected	MCL	Possible Source
Alkalinity, Total (ppm)	34	N/A	Erosion of natural deposits.
Bicarbonate	41	N/A	Erosion of natural deposits.
Calcium (ppm)	17.8	N/A	By-product of water treatment; Erosion of natural deposits.
Chloride (ppm)	11	300*	Erosion of natural deposits.
Conductivity (mmhos/cm)	207	N/A	Erosion of natural deposits.
Magnesium (ppm)	1.73	N/A	Erosion of natural deposits.
Sodium (ppm)	14.2	N/A	By-product of water treatment; Erosion of natural deposits.
Sulfate (ppm)	39	300*	Erosion of natural deposits.
Total Dissolved Solids (ppm)	110	1,000*	By-product of water treatment; Erosion of natural deposits.
Total Hardness (ppm)	51	N/A	Erosion of natural deposits.
Metolachlor (ppb)	0.28	N/A	Runoff from herbicide used on row crops.

***Constituents listed above with an MCL are secondary water quality standards relating to the aesthetic quality of drinking water and are not considered health effects concentrations.**

The unit micromhos per centimeter (mmhos/cm) is a measure of the ability of a substance to conduct an electric current within a given surface area. Conductivity is the result of dissolved minerals and other conductors present in the water.

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 **784-2464**.

For questions about your **water utility bill**, please call the Water Billing Office at **785-7511-Extension 270**.

The Paris City Council meets at **6:00 PM** on **Thursday prior to the second Monday** and the **second Monday** of each month in the Paris Junior College Applied Technology Building, 2400 Clarksville St., Room 1016. Special council meetings are called as needed. Call the City Manager's office at **(903) 785-7511-Extension 202** for special meeting dates and times.

Thank You

The City of Paris