

# WATER QUALITY '06

## City of Luling

EXCELLENCE IN WATER QUALITY

Luling Water Department 830/875-2469      GBRA Water Treatment Plant 830/875-2132



The City of Luling receives most of its water from the San Marcos River, shown here at the old Zedler Mill and Dam in Luling.

Dear Customer:

The City of Luling is pleased to provide you with this 2006 Water Quality Report. We take all possible precautions to safeguard your water supply and hope you will be encouraged to learn about the high quality of water provided to you.

The federal Safe Drinking Water Act (SDWA) requires water utilities to issue an annual report to customers, in addition to other notices that may be required by law. This report explains where your drinking water comes from, what it contains, and the health risks our water testing and treatment are designed to prevent.

We are committed to providing you with information about your water supply because informed consumers are our best allies in supporting improvements needed to maintain the highest drinking water standards.

**We are proud to report that the Texas Commission on Environmental Quality (TCEQ) has assessed our system and determined that your drinking water, provided by the City of Luling through the Guadalupe-Blanco River Authority's surface water treatment plant, meets or exceeds all federal and state established water quality standards.**

The tables in this report list all substances that were detected in our treated water, and the highest level at which they were detected. The tables also reflect the highest levels allowed by federal regulatory agencies. Please read this information carefully and if you have questions, call the numbers listed in this report.

### Customer Views Welcome

The City of Luling strongly supports the national primary drinking water regulation compliance process. If you are interested in learning more about the water department, water quality, or participating in the decision-making process, there are a number of opportunities available.

Questions about water quality can be answered by calling 830/875-2469 from 8 a.m. - 5 p.m., Monday through Friday. Inquiries about public participation and policy decisions should be directed to the City Manager's office at 830/875-2481.

The Luling City Council meets every 2nd Thursday of the month at 7:00 p.m. at City Hall and all meetings are open to the public.

### En Español

Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en Espanol, favor de llamar al tel. 830/875-2469 para hablar con una persona bilingue en espanol durante las horas regulares de oficina (8 a.m. - 5 p.m.).



### Required Additional Health Information

In order to ensure that tap water is safe to drink, the USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that 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 the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 or through the ground, it dissolves naturally-occurring minerals and radioactive 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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses;
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems;
- (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

**National Primary Drinking Water Regulation Compliance**

*This report was prepared with technical assistance from the Guadalupe-Blanco River Authority. GBRA will be happy to answer any questions about the Luling Water Treatment Plant or its water quality and treatment process. Please contact us at 830/875-3132 or through our website at [www.gbra.org](http://www.gbra.org). Water quality data for community water systems throughout the United States is available at [www.waterdata.com](http://www.waterdata.com).*

**Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS OR OTHER IMMUNE PROBLEMS:**

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.

United States Environmental Protection Agency (USEPA) and the Center 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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

### Where Do We Get Our Drinking Water?

The City of Luling receives its water from surface water diverted from the San Marcos River and treated at the Luling Water Treatment Plant, operated by the Guadalupe-Blanco River Authority (GBRA). Wells provide a supplemental supply.

The TCEQ completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact the GBRA Luling WTP at (830) 875-2132.

Trained operators monitor and test the water, including the addition of fluoride and chlorine, to ensure that our water meets or exceeds all state and federal drinking water standards. The treated water is delivered to the City's water towers and delivered through its distribution system to you.

### What We Found

The following tables list the contaminants that have been found in your drinking water. USEPA requires water systems to test for more than 97 contaminants. The column marked "Highest Level at Any Sampling Point" shows the highest test results during the year. The "Source of Constituent" column shows where this substance usually originates.

#### DEFINITIONS:

**Maximum Contaminant Level (MCL)** - the highest level of the contaminant allowed in drinking water. MCL's are set as close to the MCLG's 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 health risk. MCLG's allow for a margin of safety.

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

**NTU** = Nephelometric Turbidity Units.

**ppm** = parts per million, or milligrams per liter (mg/L).

**ppb** = parts per billion, or micrograms per liter (ug/L).

**MRDL** = Maximum Residual Disinfection Level.

### TABLE I - Test results for the GBRA Luling Water Treatment Plant Source Water

The EPA Long Term 2 Enhanced Surface Water Treatment Rule (LT2 Rule) requires that water treatment plants monitor the source water (water prior to treatment plant) for *Cryptosporidium*, turbidity and *E.coli*. *Cryptosporidium* is a microbial pathogen that may be found in water contaminated-*E.coli* and *Cryptosporidium* levels in the source water. Although treatment plant filters remove *Cryptosporidium*, filters cannot guarantee 100% removal nor can the analysis determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection causing nausea, vomiting, diarrhea and abdominal cramps that may occur after ingestion of contaminated water. Bimonthly sampling of the San Marcos River, the source water for the GBRA Luling Water Treatment Plant, began in October 2006 and will continue until September 2008. The following table summarizes the source water data collected in 2006.

Year	Detected Constituent	Measured Concentration	Number of Analyses Performed	MCL	MCLG	Unit of Measure	Source of Constituent
2006	Cryptosporidium	6	0.03	<0.1 - 0.2	14 - 120	Oocyst per Liter	Most Probable Number
	<i>E. coli</i>	6	42.4*				NTU
	Turbidity	6	22	16 - 28			
	*Geometric Mean						
Year	Constituent	Average Concentration	Minimum Concentration	Maximum Concentration	Unit of Measure	Source of Constituent	
2006	Total Organic Carbon	1.27	0.87	2.72	ppm	Naturally occurring; no health effects directly associated.	

### TABLE II - Test results for the GBRA water supply to Luling (Sampled at the GBRA Water Treatment Plant)

Year	Detected Constituent	Measured Concentration	Number of Analyses Performed	MCL	MCLG	Unit of Measure	Source of Constituent
2002	Barium	0.031	2	2		ppm	Discharge of drilling wastes; erosion of natural deposits.
2006	Fluoride	0.68	4	4		ppm	Erosion of natural deposits; water additive which promotes strong leach; runoff from fertilizer use.
2006	Nitrate	1.19	10	10		ppm	Runoff from fertilizer use; leaching from septic tanks; treated wastewater effluent; erosion of natural deposits.
2002	Chromium	1.41	1	100	100	ppb	Erosion of natural deposits.

Inorganics

Year	Detected Constituent	Measured Concentration	Number of Analyses Performed	Unit of Measure	Source of Contaminant
2006	Chloroform	3.3	1	ppb	Byproduct of drinking water disinfection.
2006	Bromoform	1.7	1	ppb	Same as above.
2006	Bromodichloromethane	5.9	1	ppb	Same as above.
2006	Dibromochloromethane	6.4	1	ppb	Same as above.

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. Turbidity is measured 4 times per day through grab samples and continuously through automatic on-line individual filter turbidity monitors.

Year	Detected Constituent	Highest Single Measurement Limits	Lowest Monthly Turbidity Limits	Unit of Measure	Source of Constituent
2006	Turbidity	0.21	100	NTU	Soil runoff.

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.

Year	Disinfectant	Average Concentration	Minimum Concentration	Maximum Concentration	MRDL	MRDLG	Unit of Measure	Source of Constituent
2006	Chloramines	2.31	0.5	3.9	4.0	<4.0	ppm	Disinfectant used to control microbes.

### Disinfection Byproducts

Year	Contaminant	Avg. Measured Concentration	Number of Analyses Performed	Min	Max	MCL	MCLG	Unit of Measure	Source of Constituent
2006	Total Haloacetic Acids	12.1	2	10.4	13.8	60	0	ppb	Byproduct of drinking water disinfection.
2006	Total Trihalomethanes	20.3	4	14.1	27.8	80	0	ppb	Byproduct of drinking water disinfection.

Unregulated Contaminants There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year	Contaminant	Avg. Measured Concentration	Number of Analyses Performed	Min	Max	MCL	MCLG	Unit of Measure	Source of Constituent
2006	Bromoform	3.4	4	2.5	4.7			ppb	Byproduct of drinking water disinfection.
2006	Bromodichloromethane	6.5	4	3.4	8.7			ppb	Byproduct of drinking water disinfection.
2006	Dibromochloromethane	7.3	4	9.4				ppb	Byproduct of drinking water disinfection.
2006	Chloroform	3.1	4	<2.0	6.1			ppb	Byproduct of drinking water disinfection.

### Lead and Copper at household tap/analyzed every 3 years

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2004	Lead	7.0000	0	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2004	Copper	0.1390	0	1.3	ppm	leaching from wood preservatives.

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.

Year	Contaminant	Highest Monthly Number of Positive Samples	MCL	Unit of Measure	Source of Constituent
2006	Total Coliform Bacteria	1	*	Presence	Naturally present in the environment.

*E. coli* Reported monthly tests found no *E. coli* bacteria.

\*Two or more coliform found samples in any single month.