

2012 ANNUAL DRINKING WATER QUALITY REPORT

(Consumer Confidence Report)

City of Lake Worth, TX

Phone No: 817-237-1211 EXT 200

Special Notes

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).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may want to have your water tested. Information on lead in drinking water testing methods, and steps you can take to minimize exposures is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Water Sources: The Source of drinking (both tap water and bottle water) includes rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material and can pick up substance resulting from the presence of Contaminants that may be present in source.

>Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and

>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 >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.

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S Environmental Agency (EPA) required test and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Where do we get our drinking water? Lake Worth's drinking water during 2011 consisted of 17% Ground and 83% Surface water sources. It comes from the following: Lake Worth has two wells that pull ground water from the PALUXY and TRINITY aquifers and the City of Ft. Worth. Fort Worth's water sources are Lake Worth Lake, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Lake, Cedar Creek Reservoir, Benbrook Lake and the Clear Fork Trinity River.

A Source Water Susceptibility Assessment for drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality and will be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment will allow us to focus our source water protection strategies. For more information on source water assessment and protection efforts at our system, please contact Sean Densmore at 817-237-1211 EXT 200

PUBLIC PARTICIPATION OPPORTUNITIES

Days	Monday - Friday
Time	8:00 a.m. – 5:00 p.m.
Location	Lake Worth City Hall, 3805 Adam Grubb
Phone No.	(817) 237-1211 EXT 200
Web Site	www.lakeworthtx.org

En español Este informe incluye información importante sobre el agua potable. Si tiene preguntas o' comentarios sobre este informe en español, favor de llamar al tel (817) 237-1211 EXT 110. Par hablar con una persona bilingüe en español.

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

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. U.S. EPA requires water systems to test up to 97 constituents.

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not EPA. These constituents are not cause for health concerns. Therefore, secondary constituents are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Microorganism Testing

TRWD monitors the raw water at all intake sites for Cryptosporidium, Giardia Lambia and viruses. The source is human and animal fecal waste in the watershed.

No viruses were detected. Cryptosporidium and Giardia Lambia, microbial parasites common in surface water, were detected at very low levels in 2012.

The Cryptosporidium testing methods cannot determine if the parasite is dead and inactive or alive and capable of causing cryptosporidiosis. This is an abdominal infection that causes nausea, diarrhea and abdominal cramps after indigestion. The drinking water treatment process is designed to remove Cryptosporidium and Giardia Lambia through filtration.

DEFINITIONS / Abbreviations:

Maximum Residual Disinfectant Level (MRDL)- The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG)- The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Maximum Contaminant Level (MCL) – The highest permissible level of a contaminant in drinking water. MCL's are set as close to the MCLG's as feasible using the best available 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.

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

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

mrem- millirems per year (a measure of radiation absorbed by the body)

NTU – Nephelometric Turbidity Units

MFL – million fibers per liter (a measure of asbestos)

pCi/l – picocuries per liter (measurement of radioactivity)

ppm – parts per million, or milligrams per liter (mg/l)- milligrams per liter or parts per million- or one ounce in 7350 gallons of water

ppb – parts per billion, or micrograms per liter (ug/l)- Micrograms per liter or parts per billion- or one ounce in 7,350,000 gallons of water

na- not applicable

Avg.- Regulatory compliance with some MCLs are based on running annual average of monthly samples.

ppt – parts per trillion, or nanograms per liter

ppq- parts per quadrillion, or picograms per liter

Inorganic Contaminants-

Nitrate Advisory - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violations	Likely Source of Contaminant
3/17/10	Antimoy	0.41	0-0.41	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition
3/17/10	Arsenic	0.228	0-0.228	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production waste
3/17/10	Barium	0.0106	0.00949-0.0106	2	2	ppm	N	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
3/17/10	Chromium	4.4	3.93 – 4.4	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits
7/11/11	Fluoride	0.39	0.39 -0.39	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
2012	Nitrate (measured as Nitrogen)	0.35	0.066-0.301	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
3/17/10	Selenium	1.01	0.93 – 1.01	50	50	ppb	N	Discharge from petroleum refineries; Erosion of natural deposits; Discharge from mines
3/17/10	Thallium	0.012	0.011 – 0.012	0.5	2	ppb	N	Discharge from electronics, glass and leaching from ore-processing sites; drug factories

**Synthetic Organic Contaminants
Including pesticides and herbicides**

Collection Date	Contaminant	Highest Level detect	Range of levels detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
7/11/2011	Dalapon	2.01	0-2.01	200	200	ppb	N	Runoff from herbicide used on right of ways

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2011	Chlorine Residual, Total & Free	2.1	0.5	3.6	4	4	ppm	Disinfectant used to control microbes.

Radioactive Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violations	Likely Source of Contaminant
3/17/2010	Gross alpha Compliance	2.7	2.4-2.7	0	15	pCi / L	N	Erosion of natural deposits

Regulated Contaminants

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future

Year	Disinfectants and Disinfection By-Products	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violations	Source of Contaminant
2012	Trihalomethanes (TThm)	4	6.4-9	No goal for the total	80	ppb	N	Byproduct of drinking water disinfection.
2012	Haloacetic Acids (HAA5)	4	2.9-7	No goal for the total	60	ppb	N	Byproduct of drinking water disinfection.

Unregulated Contaminants

Bromoform, Chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2009	Chloroform	5.23	0	16.86	ppb	Byproduct of drinking water disinfection.
2009	Bromoform	0.51	0	1.01	ppb	Byproduct of drinking water disinfection.
2009	Bromodichloromethane	3.9	0	12.85	ppb	Byproduct of drinking water disinfection.
2009	Dibromochloromethane	2.18	0	5.55	ppb	Byproduct of drinking water disinfection.

Lead and Copper

Definitions:

Action Level Goals (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for margin of safety.

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

Data Sampled	Constituent	The 90 th Percentile	MCLG	Number of Sites Exceeding Action Level	Action Levels (AL)	Unit	Violation	Source of Constituent
6/15/10	Lead	2.15	0	0	15	ppb	N	Corrosion of household plumbing systems, Erosion of natural deposits.
6/15/10	Copper	0.238	1.3	0	1.3	ppm	N	Corrosion of household plumbing systems, Erosion of natural deposits, Leaching from wood preservatives.

Health Information for Lead

“If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing you tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.”

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.

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Sample Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2009	Turbidity	0.50	99.00	0.3	NTU	Soil runoff.

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest no. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or fecal Coliform Samples	Violation	Likely Source of Contaminant
0	1 positive monthly sample	There were no TCR detections for this system in this CCR period		0	N	Naturally present in the environment

Secondary And Other Not Regulated Constituents (No associated adverse health effects.)

Date Sampled	Constituent	Average Level	Minimum Level	Maximum Level	Limit Level	Unit of Measure	Source of Constituent
2009 - 2005	Bicarbonate	283	95	421	NA	ppm	Corrosion of carbonate rocks such as limestone.
2008	Hardness as Ca/Mg	151	120	185	NA	ppm	Naturally occurring calcium and magnesium.
2006-2005	Carbonate	23	0	34	NA	ppm	Corrosion of carbonate rocks such as limestone.
2009-2005	Chloride	21	15	34	300	ppm	Abundant naturally occurring element; Used in water purification; Byproduct of oil field activity.
2009-2005	P. Alkalinity as CaCO ₃	19	0	28	NA	ppm	Naturally occurring soluble mineral salts.
2009-2005	pH	8.8	8.2	9.2	>7.0	units	Measure of corrosivity of water.
2009 - 2005	Sulfate	45	27	60	300	ppm	Naturally occurring; Common industrial byproduct; Byproduct of oil field activity.
2009	Sodium	24	19	26	NA	ppm	Erosion of natural deposits: byproduct of oil field activity
2009-2005	Total Alkalinity as CaCO ₃	295	95	401	NA	ppm	Naturally occurring soluble mineral salts.
2009-2005	Total Dissolved Solids	426	197	538	1000	ppm	Total dissolved minerals constituents in water.